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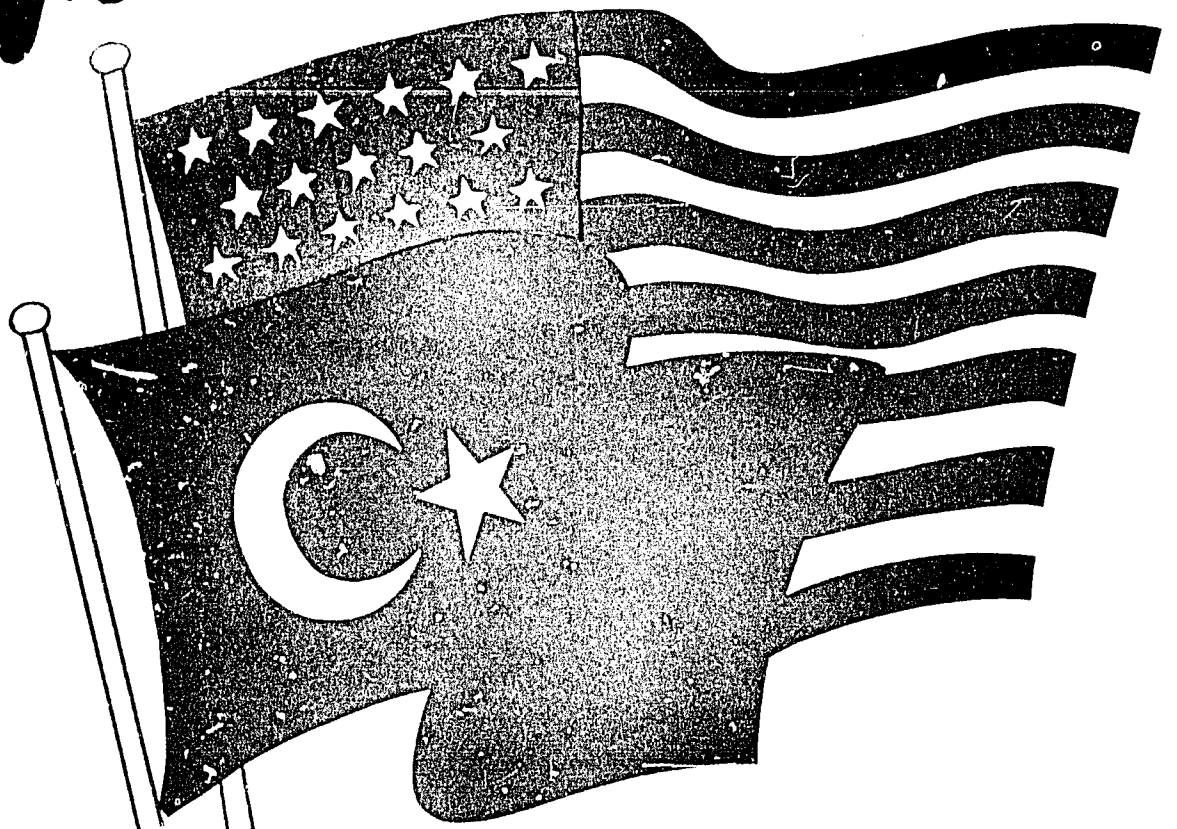
Nebraska in Turkey



A.I.D.
Reference Center
Room 1656 NS

Semiannual Report

Turkish University Program

July 1, 1965

December 31, 1965

COVER PAGE

The cover of this report was designed by Clifford Hollestelle, an artist for the Department of Information of the University of Nebraska. The idea for the cover was derived from the sight of the United States flag and the Turkish flag side by side in front of the Hilton Hotel in Istanbul. It is essential to the free world that these flags continue to fly together to represent the cooperative effort that exists in maintaining the freedom and dignity of the individual. The University of Nebraska/AID project of assisting education in Turkey is based on the necessity of the education of the populace.

****

UNIVERSITY OF NEBRASKA - AID CONTRACT PROGRAM

In accordance with provisions of Contract No. AID/nesa-188 Appendix A - Article IV, we submit herewith the progress report covering the period July 1, 1965 to December 31, 1965.

Jason S. Webster, Coordinator
Uni. Nebraska Turkish Program

E. F. Frolik, Dean
College of Agriculture and Home Economics

Entered into Contract March 28, 1955

Amendments

May 3, 1955
June 29, 1955
August 5, 1955
September 19, 1955
March 16, 1956
July 3, 1956
September 22, 1956
January 5, 1957
November 22, 1957

Superseded by New Contract, May 19, 1958

Amendments

June, 1959
September, 1959
June, 1960
May, 1962
August, 1963
June, 1964

Superseded by New Contract, July 1, 1965

(The Agriculture and Veterinary Medicine programs at Ankara University were phased out as of June 30, 1963, and the Home Economics program in July, 1965.)

SCOPE: Render technical advice and assistance to Turkey for the purpose of improving the economic development and general welfare of Turkey by assistance to its Ataturk University.

Conditions Governing Operations: Services provided in Turkey are an integral part of the United States AID and will be performed under the general policy guidance of the USAID Director; the University of Nebraska will be responsible for all professional and technical details of the contract and shall keep the USAID Director currently informed of the progress of the project.

COORDINATOR'S COMMENTS

by

Jason S. Webster

Our part of the program under AID support at Ankara University officially terminated on June 30, 1965. The last segment of our assistance to Ankara University dealt with the establishing of a Home Economics Department under the six-and-one-half-year leadership of Professor Evelyn Morrow Lebedeff. Mary Rokahr preceded Mrs. Lebedeff in 1956-58.and introduced Home Economics to Ankara University. We are including the complete history of this part of our work in Turkey in this semiannual report. Mrs. Evelyn Morrow Lebedeff's present address is: CARE, Inc., P. O. Box 2098, Alwiyah, Baghdad, Iraq.

Dr. Virginia Trotter visited Turkey in July, 1965, and has since been studying means of providing further assistance to Home Economics in Ankara University, Hacettepe Science Center and Ataturk University. There is an excellent opportunity for close cooperation between these institutions in the field of Home Economics.

Our program under AID at Ataturk University is to terminate on June 30, 1967 unless it is extended. Consideration is being given to continuing the program until 1972. One of the principal reasons for an extension is to strengthen the graduate program. This would reduce the necessity of students leaving Turkey to take graduate work. This would reduce the cost to Turkey and retain the services of the graduate students at the University while they are studying. Dr. Hanway's report deals with this discussion in more detail.

The University of Nebraska is becoming involved in an extensive program of assisting with the improvement of higher education in Colombia, South America. Other universities, AID, and various sources of funds will be included in the project. We are confident that this will complement our program in Turkey by expanding a favorable attitude toward international service at the University of Nebraska. This should also increase the interest in international work of the other Midwest universities which will participate in the Colombia project.

The addition of the Medical Faculty to Ataturk University is expected to have a dynamic influence on the entire university. It will strengthen the sciences, the library, and modernize the administrative procedures. It will make a great contribution to the health of Eastern Turkey. Health education can be extended to the villages together with education in Home Economics and Agriculture. Dr. Ihsan Dogramaci, President of the Hacettepe Science Center in Ankara, is to be complimented for promoting the Medical Faculty at Ataturk University and we hope that all necessary support for his efforts will be forthcoming.

Several of the Nebraska staff in Erzurum have arrived during this period. According to the reports that we receive, considerable progress has been made in spite of a variety of handicaps, such as, lack of assistants, textbooks, and laboratory equipment. There are periods of time in this work when progress is made by maintaining the status quo until certain problems are solved. Our staff have displayed remarkable ingenuity and patience which will bring results.

PERSONNEL
UNIVERSITY OF NEBRASKA STAFF IN TURKEY
July 1, 1965 - December 31, 1965

Name	Position	From	To
Allen, Harold L.	Chief Advisor, Nebr. Group	Oct. 1, 1956	Aug. 15, 1965
Bliven, Bonita	Secretary-Ankara	Feb. 25, 1965	Feb. 24, 1967
Bresson, Amel L.	Prof. Chemistry	Sept.27, 1965	Sept.26, 1967
Crawford, Shirley	Secretary	Mar. 19, 1963	July 15, 1965
Doane, Ted H.	Prof. Ag. Extension	May 9, 1964	May 8, 1966
Fenske, Leo J.	Prof. Farm Management	Oct. 8, 1960	Sept.22, 1967
Hanway, Donald G.	Chief Advisor, Nebr. Group	June 21, 1965	June 20, 1967
Kroontje, Wybe	Prof. Soil Science	Oct. 28, 1963	Sept.24, 1965
Perrin, Marie Louise	Secretary	June 3, 1965	June 2, 1967
Swift, Lloyd H.	Prof. Botany	Sept.19, 1963	July 29, 1965
Weihing, John L.	Prof. Plant Science	Feb. 1, 1964	Jan. 23, 1966

Above staff members at Ataturk University, Erzurum, Turkey unless specified Ankara, Turkey.

ATATURK PARTICIPANTS IN THE UNITED STATES UNDER UNIVERSITY OF NEBRASKA AID CONTRACT PROGRAM AS OF DECEMBER 31, 1965

NAME	FIELD OF INTEREST	LOCATION	ARRIVAL IN US	TERMINATION
AKMUT, Ozdemir	Economics	Uni. Nebraska	Aug. 8, 1965	Aug. 7, 1967
AKSOY, Ayhan	Animal Science	Uni. Nebraska	Jan. 27, 1964	June 30, 1968
ASLAN, Demir	Economics	Uni. Nebraska	Aug. 8, 1965	Aug. 7, 1967
BEYGU, Sara	Chemistry	Uni. Nebraska	Jan. 24, 1964	June 30, 1966
CELEBI, Hayati	Soils	Uni. Nebraska	July 8, 1964	July 7, 1966
DUZKAYA, Mehmet	Mathematics	Uni. Nebraska	Jan. 27, 1964	June 30, 1966
ERGIN, Seckin	English	Uni. Nebraska	Aug. 6, 1965	Aug. 5, 1967
GULTEN, Sefkati	Ag. Economics	Uni. Nebraska	Aug. 8, 1965	Aug. 7, 1967
ISYAR, Yuksel	Ag. Economics	Uni. Nebraska	Aug. 8, 1965	Aug. 7, 1967
KUSHAN, Battal	Ag. Economics	Uni. Nebraska	Aug. 8, 1965	Aug. 7, 1967
LELOGLU, Necdet	Bacteriology	Uni. Nebraska	Jan. 27, 1964	June 30, 1966
ORUC, Nazmi	Soils	Uni. Arizona	Jan. 27, 1964	Feb. 10, 1966
OZALP, Nuran	Physics	Uni. Nebraska	Sept. 6, 1963	Feb. 28, 1966
SISMAN, Nevzet	Ag. Engineering	Uni. Nebraska	Jan. 12, 1965	Mar. 30, 1966
	FORMER PARTICIPANTS UNDER UNI. NEBR. AID/CONTRACT PROGRAM NOW UNDER ASSISTANTSHIPS			
ALPAN, Orhan	Animal Breeding	Oregon State	Jan. 22, 1962	Jan. 17, 1967
BAYSAL, Ismet	Plant Science	Uni. Alberta	Sept. 6, 1963	Aug. 31, 1967
KIP, Ergun	Ag. Economics	Uni. California	Sept. 6, 1963	June 30, 1967
SENEL, Servet	Animal Nutrition	Uni. Nebraska	Aug. 31, 1961	Apr. 19, 1966
YILDIZ, Attila	Chemistry	Uni.No.Carolina	Sept.12, 1963	July 1, 1967
	FORMER PARTICIPANT UNDER UNI. NEBR. AID/CONTRACT PROGRAM NOW UNDER SPONSORSHIP TURKISH GOVERNMENT			
AKSOY, Necati	Soil Microbiology	Uni. Nebraska	Jan. 27, 1961	Feb. 19, 1966
	FORMER PARTICIPANT UNDER UNI. NEBR. AID/CONTRACT PROGRAM NOW PERSONALLY FINANCED			
OZDENGIZ, Ali	Ag. Engineering	Uni. California	Sept.11, 1963	June 5, 1966

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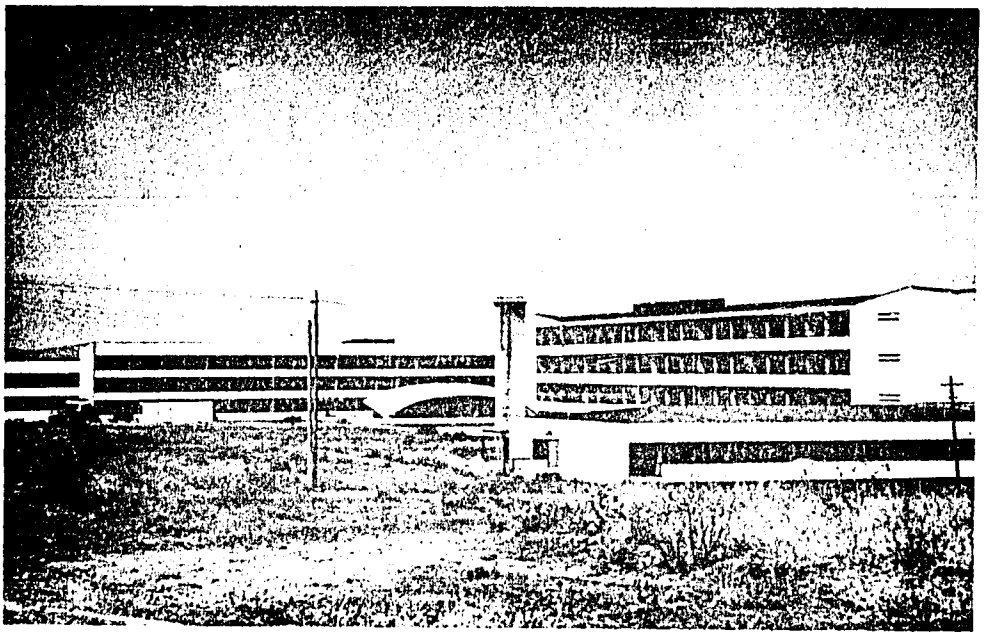
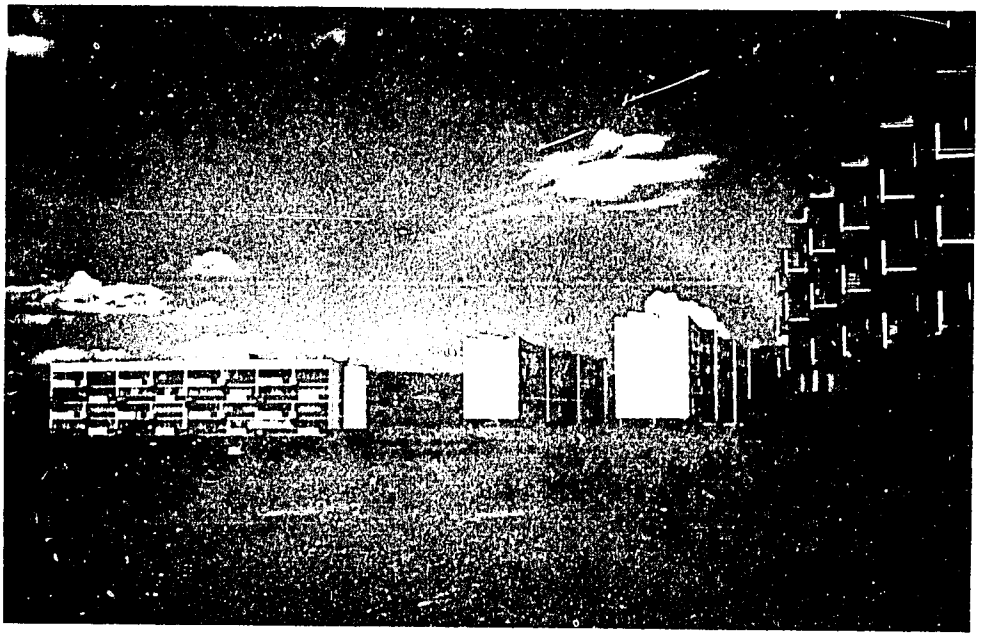
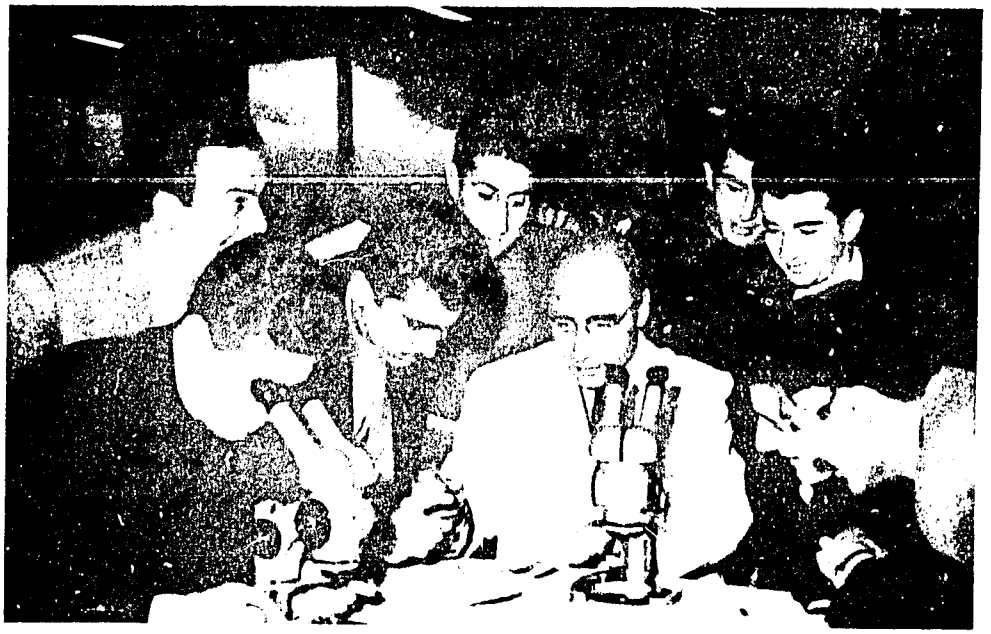


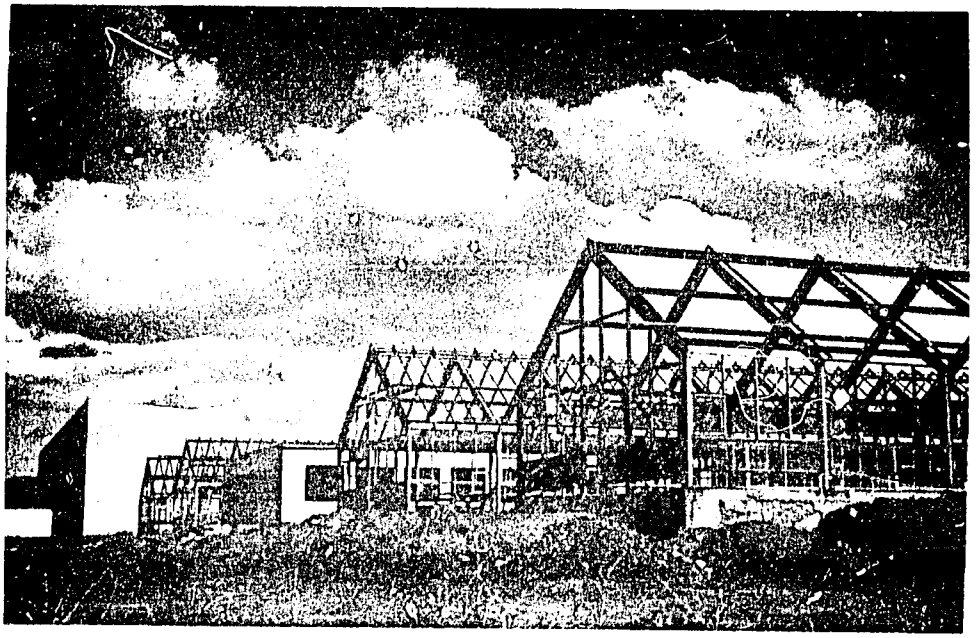
Ataturk University: Social Science Building (foreground)
Chemistry Building (background)



Housing units for staff members of Ataturk University

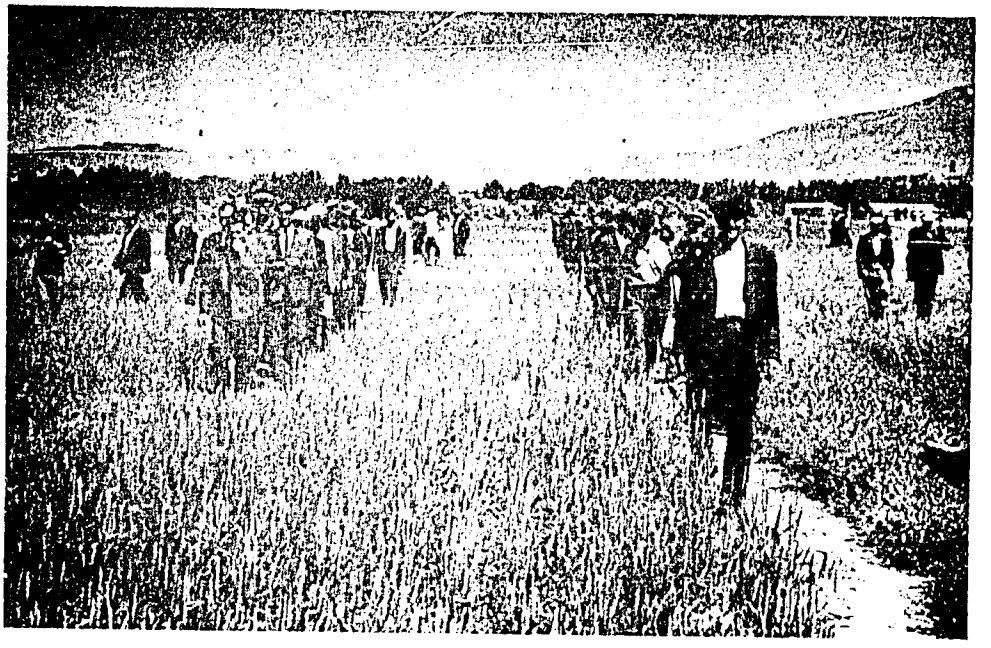


Dr. John Weihing with a class in Plant Pathology.



Greenhouses for College of Agriculture
under construction (1965)

Miss Inayet Berkman, Lecturer in the Department of Soil Science, illustrating to farmers the use of simple tools for the laying out of terraces and contours. (Field Day 1965)



Farmers studying fertilizer response under dry-land farming

REPORT OF THE

University of Nebraska Group in Turkey

July 1, 1965 to December 31, 1965

Donald G. Hanway, Chief Advisor

I. ADMINISTRATIVE COMMENT

My arrival at Erzurum on June 29, 1965 nearly coincided with the start of the six-month period covered by this report. Director James Grant of AID/Ankara, Dr. Virginia Trotter of the University of Nebraska, and Dr. Ihsan Dogramaçi were also on hand for the first major event of my tour, participation in graduation ceremonies. In September, I participated in the Food and Agriculture Division Conference at Lake Abant. I hastened back to Erzurum to greet the group from Washington, Ankara, and the University of Nebraska who came to assess the program and prospects for an extension. Shortly after this, Regent Val Peterson visited Ankara and Erzurum. Through this entire series of events, the thread has been to assess the status of development and the prospects for supporting Ataturk University so that it will have an operational program based on the land-grant philosophy and a functional, dedicated administration by 1972.

In July, Director Grant indicated a strong desire to support developments at Ataturk University through an extended period, preferably through an extended Nebraska contract if the University of Nebraska could provide the expanded resources that would likely be needed. In order to assess support needs, Rector Osman Okyar, in late July, called on his department chairmen and deans to outline a five-year development plan for Ataturk University. After they were submitted, one session was held with department chairmen of the Faculty of Agriculture to allow explanation and discussion of the proposals in agriculture. The following day a similar session was held for the Faculty of Letters and Science. These occurred in early August, just before vacations and other faculty assignments took much of the staff from the campus. Rector Okyar appointed a small committee of himself, Şaban Karataş, Dean Yalçinlar and Hanway to study the reports of the two faculties and consolidate them into a University Development Plan.

This committee first addressed itself to the general problems of organization and administration of the University. In early September, with the return of many of the staff, a series of meetings was held to study the program needs of individual departments. An analysis was made of anticipated enrollment changes, initiation of a graduate program, development of research, and emphasis on extension in estimating staff needs to 1970. By the time of the late-September meeting again involving

AID and University of Nebraska representatives, the general pattern of staff and program needs was established, but details were not yet complete. AID/Washington was represented at these meetings by Dr. James M. Blume, O. L. Mimms, Mr. Birnberg, and Dr. Anthony Lanza. AID/Ankara was represented by Director James P. Grant, Robert Hamer (Assistant Director), Mr. Ralph N. Gleason (Food & Agriculture), Robert Kerchen (Program Operation), and W. S. Smith (Food and Agriculture). Vice Chancellor Joseph Soshnik represented the University of Nebraska.

Consensus from these meetings seemed to be that the opportunities at Ataturk were great and the needs were great, but that a change in legal framework was essential to allow development of a functional, efficient administration that could be successful in making this into an excellent, modern university with the capability and orientation of serving the nation in its problems of economic development, with emphasis on agricultural development in Eastern Turkey. It was recognized that, while agriculture was to receive emphasis, plans were to be for a well-rounded modern university. Development of the supporting sciences, mathematics and social sciences is lagging to the point of limiting teaching effectiveness in agriculture.

Subsequent to these meetings, another series was held involving representatives of each department and major activities such as the Agricultural Research Institute, the Extension Institute, and the University Farm. The completed Five-Year Plan was submitted to the Ministry of Education and Director Grant of U.S.A.I.D. in early November.

The Five-Year Plan serves to emphasize the tremendous task of staff building confronting Ataturk University, to achieve the rather limited goals proposed in upgrading undergraduate teaching and expanding course offerings, initiating a graduate program to the Master's level in a few areas of subject matter, strengthening the very limited agricultural research program, and establishing a few applied research-extension centers in Eastern Anatolia. The plan has not dealt in detail with support problems or the expanded staff nor the details of recruitment and training programs on which the staff-building undertaking depends.

Initiating graduate training seems essential to achieving the staff-building goals. This depends on an English teaching program at Ataturk University that is intensive and efficient enough so graduate courses can be taught in English. American professors would be programmed at Erzurum for a semester or year to give course combinations of value to the greatest numbers of staff and perhaps representing total Master's curricula in a few areas. While studying English and taking the graduate courses, the personnel would be on hand to contribute to the teaching and research programs of Ataturk University. One reason the research program has developed so slowly is the fact that "Assistants" were programmed to Ankara for most of a year for English study followed by two to five years graduate study in the United States. During this period, they contributed nothing to program development at Ataturk University.

Success in the graduate program depends on effective teaching of English. At present, the English Department has no Turkish staff member beyond "Assistant" rank. Particular attention must be given to developing a short-range staff of adequate members to give emphasis to teaching English at the undergraduate level and developing Turkish staff qualified to give continuity and long-range English teaching capability to the University. At present, the Ataturk University library is over fifty per cent English titles. English is the language of the majority of scientific and technical literature that Ataturk University needs to adapt and apply to Turkey's needs. Most Assistants prefer to work for advanced degrees in the United States, but they have access to the American University of Beirut and also to Great Britain, Australia, Canada, and other countries if they have functional ability in English.

In passing, I must pay tribute to the six Peace Corps volunteers who have worked at Ataturk University through the first semester. They taught Freshman English in the Agriculture Faculty, special classes for upper-class students interested in English, and relatively intensive English to Assistants and others who may be considered for participant training. The Peace Corps volunteers were carefully selected college graduates with English majors--persons well qualified in training and interest for teaching of the kind needed and undertaken. Two additional volunteers have been requested for second semester to allow intensification of English training for the "Assistant" group.

Regent Val Peterson's visit gave him a broad view of the Ataturk University program, its stage of development, its problems, and its projected role. First-hand acquaintance with the operational end of contract operations is helpful in dealing with related matters coming to the Board of Regents. Mr. Peterson had an audience with Prime Minister Demirel shortly after he assumed this office and provided an occasion for bringing the role and problems of Ataturk University to his attention.

Professors Doane, Hanway, and Weihing participated in the Lake Abant conference of the Food and Agriculture Division. This was very informative and helpful in becoming acquainted with the total program of this Division and the relation of our contract to it. Next to the Integrated Agriculture project at Denizli, the Ataturk University program represents the second largest effort of this Division in the field of agriculture.

Through all these activities, Mr. Wesley S. Smith has been most helpful. Director Grant has given a real spark of enthusiasm for looking to the future with strong support for a solid, progressive program. Other divisions of AID/Ankara have also been very cooperative. Changes in Appendix A and modified interpretations on operational procedures have utilized considerable time and occasioned some minor problems that are not yet fully resolved. I envision no serious difficulties in reaching agreement with the forthright but cooperative spirit that seems to exist.

Similarly, the interest of AID/Washington has been high, though candid, as the question of contract extension is considered. They are well informed on the situation at Ataturk University.

Some improvement has occurred in the functioning of Ataturk University administration. Rector Okyar has shown a desire to delegate authority insofar as the current legal framework will allow. Fethi Inçekara resigned as Dean in Agriculture in October to return to his position at Ege University. Professor Dr. Abdusallem Ergene, who had been chairman of the Soils Department, was appointed dean. Professor Ergene was a former participant. His appointment as dean is evidence of the general advancement of former participants into positions of greater responsibility. This places one who has developed at Ataturk University and has his home here in a leadership position.

While the advancement of Professor Ergene to dean and of Omer Baykan to director of the newly established Extension Institute add strength to Ataturk administration, it has seriously depleted the staff capability of the Soils Department.

Ihsan Özçelebi, general secretary, is a capable, conscientious assistant to the Rector, and handles many of the operational details very well. He is studying English and will benefit from participant training in the United States when his English capability allows.

Dean Ergene was responsible for major progress in purchase of equipment. Formerly, equipment orders of even relatively limited size had to be submitted for bids. Restrictions were such that purchase of equipment in Turkey was almost impossible. Dean Ergene arranged with a Government agency in Ankara to make the purchases for Ataturk University for a percentage fee without going through the bid procedure. A very substantial equipment purchase was made with University funds in late fall and the materials have been delivered. This is a major advancement in operations. Purchases under the contract in the United States have been limited to minor items mostly related to teaching.

Library staffing is still a very serious problem in which no progress has been made. Prompt action is needed in recruiting and training some library personnel who will be adequate to the job of library service and development in the new building which should be completed by 1967.

Facilities in the classrooms of Ataturk University are very inadequate for effective teaching. In almost every case, they are limited to a single, relatively small, poor quality blackboard. Consideration is being given to a Special Project fund request to develop and equip a couple of model classrooms to use as guides in upgrading teaching facilities throughout the University.

One major advance was adoption of a calendar for the year during the first semester. This established dates of holidays, registration, and examinations. For the second time in the history of Ataturk

University, students were to pre-register for second semester classes before the close of the first semester. Similarly, they are to pre-register at the end of the second semester for fall classes. Work on a calendar for 1966-67 hopefully can be completed during the second semester.

Ambassador Parker T. Hart, shortly after his arrival in Turkey, arranged a visit to Ataturk University and Erzurum. Contacts made and his continuing interest are being expressed in tangible help for students with their extra-curricular activities. Arrangements have been worked out for films to be supplied regularly for showing to students. Sports equipment and musical instruments may also come from these efforts. A "Dean of Student Affairs" is badly needed because of the very restricted facilities and opportunities for extra-curricular activities for students. As enrollment continues to grow, the need becomes more urgent.

The Home Economics program at Ataturk University continues to be very weak with little activity of significance. The future of the Home Economics Department at Ankara University is questionable because of the ranking staff member's relation to the program and to the rest of the staff. Resignation of Suat Kundak is evidence of the seriousness of the problem. Home economics development in the universities of Turkey is in a very weak state at the moment. A change in law for Ataturk University might make this the most favored location for sound, long-range home economics development. The need in all of Turkey is great. The establishment of the Medical Faculty at Erzurum might support home economics by cooperative extension programs on village health and nutrition problems.

II. PERSONNEL

A. Arrivals:

1. Dr. Amel L. Bresson, wife, Trudy, and son arrived in Turkey on September 26, 1965 to begin a two-year tour of duty as professor and chairman of the Chemistry Department at Ataturk University. Dr. Bresson was professor and head of the Chemistry Department at Iowa Wesleyan College, Mount Pleasant, Iowa.

2. Dr. George H. Dunkelberg and wife are scheduled to arrive January 8, 1966 to serve as professor in the Agricultural Engineering (Kulturtekni) Department.

B. Departures:

1. Professor Edgar Z. Palmer and wife left Erzurum at the close of the semester, in early July, after serving as professor and chairman of the Department of Economics and Business. Mrs. Palmer had taught in the English Department. Professor Palmer had accepted a one-year research assignment with Roberts College

in Istanbul.

2. Dr. Evelyn Morrow Lebedeff completed her tour of duty on July 20, ending the Nebraska association with home economics development at Ankara University. She is at Izmir where Mr. Lebedeff is on the CARE staff.

3. Professor Lloyd Swift departed Turkey July 29, 1965 after completing his two-year tour as professor and chairman of the Botany Department at Ataturk University.

4. Mr. Harold L. Allen, wife and two children departed Turkey on August 15, 1965. Mr. Allen had served approximately nine years in Turkey, at first with Ankara University and finally as Chief Advisor of the Nebraska Group at Ataturk University. He returned to the University of Nebraska for graduate study.

5. Professor Wybe Kroontje, wife and daughter departed Turkey on September 24, 1965 after a two-year tour as professor and chairman of the Soil Science Department. He returned to his position at the University of Virginia at Blacksburg.

6. Professor John L. Weihing, wife and three younger children will depart from Turkey January 7, 1966 after serving a two-year tour as professor and chairman of the Plant Science (Fitotekni) Department. He is returning to his Extension position in Plant Pathology at the University of Nebraska.

III. PARTICIPANT PROGRAM

A. Ataturk University

1. The following participants were in the United States for the entire report period:

Ayhan Aksoy (Animal Science) University of Nebraska
Necati Aksoy (Soil Science) University of Nebraska (Financed outside of the UN/AID participant program)
Ismet Baysal (Plant Science) University of Nebraska and University of Alberta, Canada
Sara Beygu (Chemistry) University of Wisconsin and University of Nebraska
Hayati Celebi (Soil Science) University of Nebraska
Mehmet Duzkaya (Mathematics) University of Nebraska
Ergun Kip (Agricultural Economics) University of Minnesota and University of California
Necdet Leloglu (Bacteriology) University of Nebraska
Nazmi Oruc (Soil Science) University of California and University of Arizona
Nuran Ozalp (Physics) University of Nebraska
Ali Ozdengiz (Agricultural Engineering) University of California (terminated as participant in September but remained in

U.S. personally financed.)
Nevzat Sisman (Agricultural Engineering) University of Nebraska
Attila Yildiz (Chemistry) University of North Carolina

2. Sabahattin Senol, participant in Plant Science at Nebraska, returned in September and assumed his teaching and research duties at Ataturk University.

3. The work programs of the following participants were amended to extend their training periods in the United States:

Sara Beygu
Mehmet Duzkaya
Ergun Kip
Necdet Leloglu
Nuran Ozalp

4. Six participants departed in August for Nebraska and a month of special English training before starting their advanced studies. They are:

Ozdemir Akmut (Economics)
Demir Aslan (Economics)
Seckin Ergin (English)
Sefkati Gulten (Agricultural Economics)
Yuksel Isyar (Agricultural Economics)
Battal Kushan (Agricultural Engineering)

5. Three participant candidates returned from the English Training program in Ankara in October. They continued study of English and worked with Professor Weihing in preparing to leave for the United States in January, 1966. They are:

Saffet Baydar
Coskun Koycu
Selahattin Leloglu

6. Six Peace Corps volunteers were giving English training to a number of assistants preparing for advanced training programs at Ataturk University or as participants.

B. Ankara University

Orhan Alpan and Servet Senel are continuing their training in the United States with financial support outside the Nebraska/AID contract.

IV. PHYSICAL PLANT DEVELOPMENT

Undergraduate enrollment in the fall semester of 1965-1966 increased to 1368 from 1030 the previous year. In order to meet housing needs of students and assistants, three classrooms in the Chemistry Building were devoted to dormitory use by women, three classrooms in the Social Science Building to dormitory use by men, and a section of the downstairs office area of Social Science for rooms for assistants.

Loss of the classrooms made scheduling classes rather tight. Anticipation of the arrival of Medical Faculty puts added pressure on staff housing. Thus, the total space situation at Ataturk University is critical.

Throughout the second half of 1965, progress continued on the Animal Science, Agricultural Economics, and Medical buildings started in the sping. Their completion is not anticipated before late 1967. In the fall, activity was resumed on the Plant and Soil Science Building. This is now supposed to be ready for use by late summer 1966. If it is, the entire Faculty of Agriculture will probably move there. This will release classroom, office and laboratory space for the Science departments, thus alleviating the space pressure for the time being. Progress continued on the new library. It does not have windows in it yet, but it is showing evidence of completion in gross structure.

Work continued on the second dormitory building. It is to be ready for occupancy by the fall semester of 1966. Even though the two dormitories are filled beyond the capacity for which they have been designed, dormitory space for students will continue to be inadequate due to increasing enrollments, until more buildings are complete.

The number of faculty apartments will also continue to be inadequate. Work was resumed on the two faculty apartment buildings under construction in the fall. The contractor has indicated that ten apartments in one of them would be available in April. This seems unlikely. Even ten will not meet the needs of the thirty Medical Faculty expected to arrive by that time. In fact, by the time thirty of the 48 units are assigned to Medical Faculty and Assistants are moved out of the temporary quarters in Social Science, there will be almost no space to meet needs of added faculty expansion. One of the two will be completed next summer. The other will probably not be occupied before 1967.

Lack of sidewalks connecting buildings on the campus and the campus with the dormitories and apartments should be remedied. The current situation not only results in unsightly paths but forces people to walk in the streets where safety becomes a factor. Many students walk down the muddy paths and carry large amounts of dirt into the buildings creating difficult cleaning problems and a very dusty situation in offices and classrooms.

Strong winds in early January, 1966 again blew the copper roof

covering off some of the apartment buildings and broke some windows. The damage has clearly proven that the roof construction is inadequate for Erzurum conditions.

Some land was leveled near the farm headquarters area. This can now be uniformly irrigated and is proposed for vegetable research.

The perimeter fence around the pasture research area was completed. Cross fencing will be built in the spring so grazing trials can be started. A new roof was constructed over the shed area of the sheep barn. A fence was installed around a playground area near the faculty apartments.

Good progress was made on the new library building. It is scheduled for completion in 1966. Present scattered facilities used to house library operations in the Science Building are inefficient and inadequate. The idea of a central library to serve the needs of the University needs to be kept and implemented, so as to give the best library service possible to all parts of the University under the conditions of limited staff, collections and acquisition funds. A most important consideration is recruitment and development of professional librarians to staff the facilities and develop library services. Care needs to be exercised to avoid investing staff and money in separate departmental and college collections that are not integrated fully with the central library.

V. SUMMARY

The most significant progress at Ataturk University is in administration. Rector Okyar's leadership in preparing the Five-Year Development Plan and the thinking of the group who prepared the plan are definitely directed toward having this institution serve the research and extension needs of Eastern Turkey, as well as be a teaching institution. This group has a sound philosophyand dedication to this purpose.

The law under which the University operates limits the ability of the administration in forming and carrying out an efficient university operation. Rector Okyar and the leadership group have prepared a new draft of proposed legislation for Ataturk University. This proposal is sound in essential characteristics. Unfortunately, many staff members of Ataturk University seem to have fears for their security if any change occurs. Even some who seem quite dedicated to the principle of a land-grant type institution seem more worried about personal security than the establishment of an excellent, functional university. The University administration cannot now control and use its budget effectively because of the legal framework involved. More importantly, it has no control of advancement of staff in either salary or rank. Thus, it cannot recognize and reward merit appropriately, a function essential for establishing the productivity and level of excellence required in modern

universities.

Other significant progress is in the advancement of Turkish staff. With more staff members advanced to the Doçent level and two newly advanced to Professor rank, the Turkish staff is growing in capability to plan and conduct programs. There is no question about their assuming more of the leadership responsibility in every kind of activity. They are taking control and this is good.

Still, the pressure on individuals to direct their efforts successively to a Doctor's degree, Doçent thesis, and finally to Professor rank is putting emphasis on personal advancement and not on development of an integrated, long-range program to serve the needs of Turkey. Hopefully, a change in law will allow advancement in rank to be based on productivity and contributions to the Ataturk program.

The major problem of Ataturk University is still staff building in spite of advancements made thus far. Pressures for increasing enrollment are very great. The University must develop research and extension capability if it is to serve the needs of Eastern Turkey. More well-trained staff must be added before this capability exists. Insofar as intensive English training could be given at Ataturk University and graduate courses could be offered to carry some "Assistants" to the M.S. level, these persons would contribute to program development while in the training process. Most of the graduate courses must be taught by Americans in English to be effective at this stage of development. The contact of added American staff will be salutary in developing the academic atmosphere at Ataturk University, in encouraging sound long-range program planning, and in building stronger institutional relationships between Ataturk and Nebraska Universities.

Finally, then, Ataturk University has made significant progress under existing conditions, but legal changes must occur before it is operating in a framework that will allow it to become an excellent modern university.

AGRICULTURAL ECONOMICS DEPARTMENT

Professor Leo J. Fenske

QUARTERLY REPORT
July 1 - September 30, 1965

The author and wife were on home leave and annual leave from July 8 to September 21. This was our first trip to the States in three years, hence, it was most enjoyable and appreciated. However, our return seemed very much like coming "home".

Staff and Departmental Activities

Sefkati Gülten and Yuksel Işyar are presently at the University of Nebraska as participants. Sefkati will prepare himself in Agricultural Economics Extension and Yuksel in Statistics.

Ergun Kip successfully completed his Master's degree at the University of Minnesota, and he has received a scholarship from the Drylands Research Institute to study at the University of California, Davis. He will study toward a Ph.D.

Docent Dr. Aksöz is still in Germany on advanced study, but should be here for the second semester of this school year.

Kutlu Zoral completed an intensive survey of about 160 farms in the eastern Black Sea area. These data will be used for his doctor's thesis.

Turgut Hatanolğlu is working on the following subject: "An Economic Analysis of the Multiple Uses of Water Resources in the Ağri-Elişkirt Area." This is his doctor's thesis subject.

Dr. Assistant Orhan Türkdoğan carried on some research in sociology in Besikduzü (Trabzon) and Dursunbey (Balikesir). He studied the effects of urbanization upon these villages.

Assistant Kutlu Zoral continued the study of using animal manures for fuel in Eastern Turkey. The author initiated this study at the request of the Dean of Agriculture.

The author, as chairman of the class scheduling committee, and his assistants completed the class schedule for the first semester. Needless to say, this activity needs improving upon by more advanced scheduling.

Publications of the department include:

1. Ataturk University Research Bulletin No. 3, "Power Use on Farms in Erzurum Province", Leo J. Fenske, 1965.

2. Ataturk University Extension Bulletin, May 1965 issue, "Benefits of Agricultural Cooperatives", Leo J. Fenske. This article was later published in the August issue of Pancar, the official magazine of the sugar factories.

QUARTERLY REPORT
October 1 - December 31, 1965

Retrospect

This report is the twenty-first in a series of quarterly reports written by the author. Many changes have taken place at Ataturk University since the first one. Physical plant, student body, and staff have all increased in size. Progress has been made, but several problems yet remain to be solved. The biggest one is in the realm of cultural change. Too many of our staff members are willing to continue along with old university patterns, rather than accept the philosophy of establishing a university that will serve all segments of society. Unless we, the American group, succeed in changing these old concepts, our over-all efforts will be less than planned, less than desired.

Current Activities

As usual, the quarter has been a busy one. School officially opened on October 11, but most of the first week was given over to registering students. Therefore, classes actually began on October 18.

A resume of departmental activities follows:

Classes offered first semester:

Agr. Econ. 101	Marketing	78 students
Agr. Econ. 103	Agr. Law	60 students
Agr. Econ. 104	Farm Management	108 students
Agr. Econ. 105	Farm Credit	200 students
Agr. Econ. 201	Seminar	28 students
Agr. Econ. 202	Land Economics	72 students

Active research projects:

1. Black Sea area economic study — Kutlu Zoral
2. Agri-Eliskirt area economic study — Turgut Hatunoglu
3. Eastern Turkey economic and social study — Prof. Leo J. Fenske

New Assistants:

Metin Caglar and Cevdet Ogut were successful candidates in the assistants examination given October 11, 1965. Metin is a graduate of the Istanbul University Economics Faculty and his home is in Bayburt. Cevdet is a 1965 graduate of the Ataturk University Agricultural Economics Department and his home is in Konya. Both young men show promise of developing into good staff members. Among other things, both are now diligently studying English.

Other Activities:

1. The department members participated in the Extension Director's Conference held here November 1-3. Dr. Assistant Orhan Turkdogan and Assistant Kutlu Zoral both appeared on the program.

2. The Turkish Management Association, headquarters in Istanbul, sponsored a seminar at Ataturk University on November 11-12. The members of the Department participated in the seminar. Professor Leo J. Fenske presented a paper, "The Role of Management in Farming."

3. Turgut Hatunoglu and Professor Leo J. Fenske made a field trip to Diyarbakir on November 17-19 to gather data for Assistant Hatunoglu's thesis.

4. The author prepared a paper entitled, "Land and Man in Eastern Turkey", which was delivered at a conference of the Istanbul University Economics Institute on January 5.

5. The author is chairman of the standing committee on class scheduling and examinations. He also served as chairman of the 1965-66 academic calendar committee. These extra duties take up considerable time. In fact, it is debatable whether they are the function of the academic staff or not. However, some progress is being made along the line of being ready when school opens each semester.

6. Numerous Professors and Faculty Executive committee meetings were attended during the quarter.

Staff Development

Dr. Assistant Sefkati Gulten and Assistant Yuksel Isyar are currently enrolled in the Agricultural Economics Department at Nebraska as graduate students. This is their first semester in attendance.

Assistant Ergun Kip completed a Master's Degree in Agricultural Economics at the University of Minnesota. He is now at the University of California, Davis working toward a Ph.D. under a Drylands Research Institute grant.

Doçent Dr. Ibrahim Aksoz is completing advanced studies in Germany. He will return early in the second semester of this school year to take up his duties here.

Assistants Kutlu Zoral and Turgut Hatunoglu are working on their doctor's subjects and both should receive the degree sometime in 1966.

Dr. Assistant Orhan Turkdogan is working toward his docentship and he should receive the degree during 1966.

In addition to the major problem mentioned at the outset, many other problems still remain to be solved. Although some of thse may appear to be of a minor nature, all, added together, prevent the smooth functioning of the university. A few are listed below:

1. Separate student regulations for each faculty. They do not agree on such basic points as the grading system, number or time of examinations, especially make-up examinations, etc.

2. The make-up examinations cause more difficulty than any other single factor. These should be eliminated as early as possible.

3. Late registration of students. First year students continued to register as late as eight weeks after the opening of school this year. This was worse than usual.

4. Academic calendars, class schedules and examination schedules are prepared and published. However, some instructors and departments ignore the same and work out their own. Discipline and loyalty are needed. A University-wide approach on these matters should be accepted by all. As yet, this is lacking.

A printed catalog setting forth the academic calendar, student rules and regulations, departmental course programs and offerings, prerequisites, and the like will do much to bring about the unity desired. It is true that up to now the University has been in a state of growth and flux. However, our eighth school year will be completed in July, 1966, and we should now be ready to move ahead on this project.

AGRICULTURAL EXTENSION

Professor Ted H. Doane

QUARTERLY REPORT
July 1 - September 30, 1965

Ataturk University Field Day

July 20, 1965 was a very significant day at Ataturk University. The Field Day drew more than 450 people with 30 villages in the Erzurum provinces represented. Eleven stops were made by the convoy of more than 30 vehicles which included buses, tractor-drawn trailers, trucks, pick-ups and cars.

The staff took special interest in planning and conducting the tour. The planning went as far as a pre-tour for staff members on July 8.

Although the event was very successful, the criticism came in the evaluation session held a few days after the tour. Each department which had a part in the event wrote a short report for the help of future events. Such criticisms were (1) too large, (2) need for tours by subject matter, (3) too many stops, (4) too long a day, and (5) need to be more selective as to the age group. Too many old men came just for the ride. (The University and the Extension Service furnished the transportation for most of the people.)

The Ministry of Agriculture Extension Service did not come to the event (with the exception of the local province) even though they were invited. To "close this gap", a three-day conference is being held November 1, 2, and 3 for those in the 17 eastern provinces.

Fertilizer Demonstrations

As reported in the last quarterly report, there were demonstrations put out in three provinces in Eastern Turkey. Enthusiasm was high at the time the plots were put out, but "summer fever" killed the effectiveness of the work.

All Turkish soils members left the campus at the time it was most important to check the results. In fact, the length of absences ranged from two to three months.

There were two trips made to visit plots in Gumushane and Erzurum provinces with only the assistance of the American advisors. Excellent visual results were noticed on many plots, but no harvesting data were collected anywhere.

News Letter

Another bright spot in the Extension function has been the News Letter. Two editions were published in this quarter with increasing coverage in newspapers and magazines. Articles such as research in field crops, animal science, and an article on cooperatives from Agricultural Economics have been published this quarter. Also, information written on the Field Day drew considerable attention.

Iliça Teachers School Advisory Committee

A committee was set up to help the Iliça teachers school. The school trains village teachers. The assistance will be in home economics, plant science and animal science. Duties are to revise courses and advise in demonstration and management.

University Activities

1. Commencement was held July 3, 1965. There were 76 graduates in Agriculture and 5 in Arts and Sciences.

Plant Science	12
Animal Science	8
Soil Science	29
Agricultural Economics	21
General Agriculture	6
Arts and Sciences	5
	81

2. As a member of the Central Examination Organization, Ataturk University held entrance examinations on July 5. About 1,000 students came to take the examinations.

3. Considerable program planning was in the process during this quarter, and still is. Each member of the Nebraska Group, in his respective field, has been involved. This is a five-year development plan.

Animal Science

Several things have been done during the summer but with emphasis toward production. The sheep were dipped twice, foot trimming was practiced, and making halters and teaching the cattle to lead were part of the activities.

Other Activities

Took a trip to the Iğdir area with Dr. Hanway August 30-31. The purpose was to see more agriculture in Eastern Turkey. The route traveled was Ağri, Doğubayazit, Iğdir, Kağizman, Selim, Sarikamis and Erzurum.

Attended the Food and Agriculture Division Conference of A.I.D. at Lake Abant September 20-25. The conference was very good. We had the opportunity to express our views, as well as understanding other problems within the Mission.

Spent one week in Ankara with conferences in the Ministry of Agriculture and A.I.D.

Personnel Advancement and Training

1. Birsen Ipek, Home Economics Assistant, successfully completed her Doctor's degree in July. Her thesis was associated with nutrition of primary school children in Erzurum.

2. Took on a new assistant in Animal Science Extension. Sümer Haşimoğlu graduated this year (1965) and was assigned to Animal Science and Extension.

3. Two agricultural students, one from Soils and another from Agricultural Economics, were assigned to Extension during the summer to do their practical work. They worked in many phases at the University along with spending two weeks with the Agricultural Extension Office in Erzurum.

QUARTERLY REPORT
October 1 - December 31, 1965

EXTENSION ACTIVITIES

1. Agricultural Extension Directors Conference

Ataturk University hosted the Extension Directors and 25 of their specialists from 16 provinces in Eastern Turkey. The purpose of the November 1-3 meeting was to get acquainted and present research information to the group.

The two-and-one-half-day meeting was one of the first of its kind in Turkey where the Directors participated at a university which is interested in their problems.

The program consisted of research and activities of each department in the Agricultural Faculty, a tour of the University and farm facilities, as well as a tour of the Ilica Sugar Factory, 10 Kms west of the University.

One part of the program and maybe the most important with respect to future development of the University as well as Eastern Turkey, was the reports given by the Directors or their representatives. These reports contained their problems but, also, the problems were directed

toward help that could possibly be given by Ataturk University.

After the meeting, the reports were given to each department of the Agricultural Faculty for evaluation. Meetings followed as to program developments. Each department is now obligated to develop programs with reference to the reports.

At present, no sound program has been made except to the proposed visitation of a team to each province in Eastern Turkey. These trips may begin in February during the semester break, but should definitely be made before summer.

2. News Letter

The seventh News Letter was printed and delivered November 3. There were four contributors in this edition, three from Animal Science and one from Plant Science.

As yet, we have had no contribution from the Soils Department. The allied soils articles that have been written were done so by members from other than the Soils Department.

At the end of this quarter, the eighth News Letter is ready for January distribution. There are only two contributors to this edition, one from Animal Science and one from Agricultural Economics.

3. A Villager from Tekman County in Erzurum province came to the University to visit with the staff. His initial contact was in connection with a fertilizer demonstration put on at his farm last April.

4. One of the Peace Corps Community Development volunteers living in Parmaksiy brought three men to the University in late November. After a tour of the University and a visit with some of the staff, the villagers were so enthused that in December they returned to the University with a bus load of villagers (30). Again, the same treatment was given. They seemed to enjoy the visits and tours at the University. Their main concern was the livestock in the open sheds.

5. Attended a 4-K Achievement meeting in Sogukcermik Village; gave a speech as a representative of the University. The topic was "Four K, How It Can Help You."

TEACHING ACTIVITIES

1. The semester opened October 11, 1965. The Extension Methods course is being taught. Dr. Neriman Gorgunay is again interpreting the course. There are 142 registered. This semester, individual and team demonstrations are included in the laboratory.

2. Make-up exams were given just prior toopening of the semester.

Examinations were given in Experimental Design and Extension Methods. Again, the preparation and giving of the exams are time-wasting for both the student and the teacher. I'm sure this has been said many times. As of yet, this has not been able to be changed.

ANIMAL SCIENCE ACTIVITIES

1. The feed bunks were made for the milking parlor. Now the animals can be fed concentrate as they are milked.

2. The boiler and the heating system of the milk processing plant has been completly operable. The processing operation is to start in March.

3. The final dehorning day for old cows took place in October. All cows five years and younger were dehorned except for seven Brown Swiss cows. They will not be dehorned. Milk production records will be evaluated on the ones dehorned as to the decrease of milk production after the operation.

4. Roof top. The roof of the sheep shed was completed in December.

STAFF ADVANCEMENT AND TRAINING

1. Ahmet Kurt was granted the degree of Docent.

2. Macit Ozhan and Ferit Ucarci were turned down for the Docent degree. They will try again in 1966.

3. Sümer Hassinoglu, Extension and Animal Science Assistant, appears to be developing satisfactorily. His load this semester is:

1.	Statistics	3 hours
2.	Experimental Design	3 hours
3.	Extension Methods	2 hours
4.	Forage Crops	3 hours
5.	English	

Next semester research is to be added to his duties.

4. Prepared the suggested program of study for Selahattin Leloglu in Veterinary Science Extension to study at Nebraska University.

5. Home Economics Development

a. Dr. Ayse Baysal was approved by the Professors Council on November 9. She has responsibilities in Ankara so that she cannot accept the position prior to July, if at all.

b. The Professors Council approved one position for a Home Economics Assistant but when a girl applied, they refused her an examination.

c. Two courses in Home Economics will be added next semester: Beginning Home Economics and Beginning Clothing. Human Nutrition also is being offered next semester.

VISITORS

It is most rewarding to have the administration on the "Home Front" see and evaluate the surroundings in which we live first-hand. Thank you for the interest and concern.

DEPARTMENT OF CHEMISTRY

Professor Amel L. Bresson

QUARTERLY REPORT
October 1 - December 31, 1965

On July 15, 1965, I received a call at Iowa Wesleyan College, Mt. Pleasant, Iowa, from Jason Webster asking me to take over the Chemistry program of Ataturk University. A trip to Lincoln was made, where interviews with Mr. Webster, Dr. Frolik, Dr. Pazur and his staff in Biochemistry, Dr. Breckenridge and the Alexanders were made. I went under contract on September 15, 1965 and arrived in Ankara on September 26. We found we were sponsored by Mr. and Mrs. Studarus of A.I.D./Ankara.

Besides meeting with members of the A.I.D. staff, appointments and meetings were made with Ziya Karamuk, General Director of Higher Education; Sitki Bihmen, Assistant Undersecretary of Education; and Dean Dogan Karan and many of his staff of Haceteppe Hospital, and much was learned of the Lyce program of Turkey. We left by plane on October 1 for Erzurum and arrived in Erzurum in the early afternoon.

The successive progress of the chemistry program, in spite of many handicaps and alternate methods used, are hereby listed.

1. Almost a full semester of chemistry was given in two courses with the full four laboratories established.

2. Dr. Ergene, after his appointment as the new Dean of Agriculture on November 6, secured the services of Dr. Lutva Ogus as chemistry interpreter for six weeks of the semester. Prior to this time the chemistry course was taught by using three languages. The rest of the time reliance upon three freshmen chemistry students as interpreters and translators was necessary. The cooperation of the English program of the Peace Corps was greatly appreciated. The recommendation of October 20 concerning A.I.D. help was presented to A.I.D. on November 24 by the American Administrator and has resulted in the receiving of 4620 Turkish Lira for interpreters and translators. It was not in time for Semester I but will be there for Semester II.

3. Two full hour-exams have been given the chemistry students with fair results. Two more such exams will be given before the final examination.

4. Almost as much material was covered in Semester I Chemistry as at any well-qualified college or university in the States. This includes experiments through the calculation of the equivalent weight of a metal. Some of these experiments were translated into Turkish.

5. All Turkish chemistry personnel have been receiving English

training including the chemistry secretary.

6. Training in the use of the slide-rule for all Chemistry I students was started this year and good progress was made. A.I.D./Ankara, has indicated that a cheaper slide-rule than the Dietzgen 1767 could possibly be furnished for next year. This would allow every student a slide-rule instead of one for every three students. Each student would then be held responsible for his slide-rule at the cost of bringing it to Ataturk University.

Report of Professor Amel L. Bresson to Rector Osman Okyar and Dean Ismail Yalcinlar

I know that you are very interested and concerned about the establishment of a good Chemistry Department, not only for the School of Medicine now being established here at Ataturk University but for the training of the other students as well. Part of the development of the University's Chemistry Department will revolve around the pre-medical program but the greatest part will deal with the fields of Agriculture and Science. To these classifications, I would also consider the need at the present time of a graduate program. Since arriving here in October of this year, my main concern has been the building up of the Chemistry Department to serve the needs of all fields concerned with and requiring chemistry courses. I have, however, seen the need of this graduate program as a means of strengthening the Chemistry Department and retaining needed faculty right here in Turkey.

At the present time, the status of the Chemistry Department is as follows:

1. I an now teaching one class of General Chemistry to 165 students and directing Assistant Orhan Yavus in the handling of the second class of Kimya I. My position here is to develop the department to the full potential of which it is capable. Four laboratories have been established since the first of the year and have met regularly each week. I have been developing and writing a text for this course which should be translated into Turkish as soon as it is at all possible. For this purpose, a full-time translator is necessary. The laboratory manual, Chemistry in the Laboratory by Taylor and DeMuth of Nebraska University, should also be translated in Turkish. Part of these translations as well as course work translations are now being done by three freshman students and checked for accuracy by Assistant Orhan Yavus.

2. Assistant Rifat Danisman, a graduate of Istanbul University, handles the Organic and Analytical Chemistry. Rifat bey is a Major in the Turkish Army here in Erzurum and is in charge of the chemical laboratories of that service. He has had 12 years experience in this division and not only supervises the procedures used but administrates this department with maturity and wisdom. At the present time he is teaching the Organic Chemistry here at the University and will be in

charge of the Analytical Chemistry this second semester. He is an excellent instructor and his class discipline is good. He knows some English and is also taking English classes to develop his ability in this language. In fact, English classes are of prime importance in the plans for the development of this department.

3. Assistant Orhan Yavus is the newly appointed staff member and is a graduate of Ankara University. Orhan bey is taking English classes and is mastering the language quickly and well. He is developing into a very good and effective teacher of General Chemistry. He is patient with the students, working with them a great deal after class to answer their questions and solve their problems. His discipline is good. His reasoning is good and he will prove an invaluable assistant to handle the General Chemistry classes for this next academic year of 1966-1967. The establishment of a good, sound Kimya I course here at Ataturk University with a good instructor is, I consider, of the utmost value. Students with good training in this course advance well in other courses. I think that Orhan bey is the best qualified to handle this assignment. He can then research in any field of his special interest. Assistants will, however, be needed before this next academic year to handle the many laboratories. Mustafa Erdem, with his mastery of English, will also be needed to guide and supervise these assistants.

4. Mustafa Erdem, a senior student here at Ataturk University, has worked in Chemistry under Prof. Dr. Pekin, now at Izmir, and with Dr. Bryant Harrell. He is very interested in Chemistry and I recommend that he be made an Assistant in Chemistry for the academic year of 1966-1967.

5. Assistant Gulseren Akder is now in Germany receiving training in Chemistry at Stuttgart University. The date of her return has not been determined or set.

6. Assistant Sara Beygu is now at Nebraska University in Agricultural Biochemistry and is on extended leave until June of 1966. She spent some time at Wisconsin University and then transferred to Nebraska University in about January of 1965. Her stay at Nebraska University depends on how well she does to June of 1966. If well, she may receive an assistantship in Chemistry to work on her Ph.D. If such becomes the case, she will probably not return to Ataturk University until sometime in 1969.

7. Assistant Attila Yildiz left Ataturk University in about August of 1963 to work at North Carolina State University at Raleigh, North Carolina. I understand that he is doing well there and has been offered a scholarship by that University to do extended work for his Ph.D. in Agricultural Biochemistry. His date of return to this University will probably be 1968 or 1969.

This is the present potential of the Chemistry Department. In order to develop the potential now at the University in the Division of Chemistry, two courses of action seem open to this department head and

to the administration. Either some recruitment of more staff is necessary with the establishment of a Graduate Chemistry Program right here in Turkey or one must maintain the present chemistry staff here as well as send chemistry personnel to foreign shores for future degrees. The former takes advantage of present personnel abilities while working on doctorate programs right here while the latter not only requires extensive recruitment but will take years for these foreign-study personnel to return to this University.

In the first case, a highly possible and very probable solution exists. Assistant Rifat Danisman, the most highly trained Turkish Chemistry person here, has the desire to permanently establish himself here at the University and also has the desire to work out a doctorate program. His research, which can be done here in Erzurum, on the "Analysis of the Coals of the Erzurum Area" has already been accepted and O.K.'d by Professor Dr. Pekin of Izmir and Professor Dr's. Haldan Teran and Saffet Hanum of Istanbul. Rifat bey requests that I direct the research here giving as much formal training as possible with co-direction and formal training from the above-mentioned personnel who could also very well complete his Doctorate jury. In this way, not only formal graduate course work but directed research could take place right here in Turkey and under reliable and well-established directorship. Although this would be the first Doctorate Program in Chemistry directed mainly from Ataturk University with formal course work, the co-direction from the above mentioned professors would qualify this doctorate program for as high a rating as could be obtained in Turkey.

I have talked with members of the faculty of Ataturk University and they have designated that the program is not only feasible but practical and desirable as well. I presented this program to the staff of the Nebraska Team on December 17 and they not only considered the assessment of the Chemistry Program as real but considered the program feasible and sound.

The establishment of such a program now would not only give Assistant Orhan Yavus experience in research this year by observing the Danisman Program but allow him to start on such a program for himself the following year of 1966-1967. In the same way, teaching and research experience could be picked up by Mustafa Erdem and a full program could be established for him the following year of 1967-1968. Ataturk University would thus be building its chemistry staff from within while increasing its staff status or rank and gaining the use of the same personnel for teaching purposes. At the same time, a good knowledge of the English language could be obtained through English courses and English conversations. Following the receipt of the Doctorate Degrees, at least one year's leave of absence is desired and could be obtained to study abroad and research a field which could be used toward obtaining the Docent degree or rank.

The two assistants, Attila Yildiz and Sara Beygu are now both working in Agricultural Biochemistry. A Medical Biochemist will really be needed here also.

HOME ECONOMICS DEPARTMENT

Dr. Evelyn Morrow Lebedeff

END OF TOUR REPORT
Ankara University
1954 - 1965

FIRST PERIOD 1954 - 1955

"Preparing the Soil"

Introduction

By way of introduction it seems apropos to relate a brief description of the country in which this project was carried out.

Turkey is a real bridge between the East and West, both geographically and culturally. The area of Turkey is 296,503 square miles, 96.88% of which lies in Asia and the remaining 3.12% in Europe. The European portion of Turkey is about the size of New Hampshire, while the Asiatic portion is somewhat larger than the combined areas of Pennsylvania, Virginia, West Virginia, Kentucky, Ohio, Indiana and Illinois.

Few regions in the world have had in their history so long a period of successive civilizations. This period dates back to the fourth millenium before the Christian era. People of the paleolithic period, and those of the Age of Caverns, which we know archaeologically, but not historically, lived on these highlands, and along the coast. Then came the Hittites, Lydians, Phyygians, Carians, Dorians, Aeolians, others, and finally the Ottoman Turks, who established themselves after the beginning of the XIV Century.

As a consequence of this historic richness, Turkey is crowded with ancient cities of their remains, monuments, works of art, and relics, which makes Turkey a most interesting one for educational experiences.

The 1960 census showed that Turkey had a population of nearly 30 million with an estimated 3 percent annual increase in population. Turkey is primarily an agricultural country with about 75% of the population living in rural areas. There are 67 provinces, 540 counties and over 40,000 villages. The literacy in 1927 was 10% and was raised to about 40% by 1964.

The country has such great differences in climate, people, customs, culture, standards of living, agriculture and terrain that it might be called an empire rather than a nation. The rural areas are in general sparsely populated and present many problems in an educational campaign to raise the standards of living.

After the Ataturk Regime was established in 1923, steps were taken to raise the standards of living and change the cultural background of the Turkish people. The undertaking was a colossal one. Now more than forty years later, the effect of these measures is just becoming evident. Radical changes of this type takes a long time to show their effect, and to be successful must be accompanied by intensive educational programs.

The present standard in Turkey's social, cultural and economic life has been reached by various progressive efforts from the foundation of the Republic in the year 1923 until the present day. Parallel with the Republic's development in social, cultural and economic life, education activities and institutions have been organized with the purpose of including the entire population. Besides the aim of giving all citizens a primary education, efforts have also been made to develop higher level institutions for secondary education and University level training.

Many commissions were set up to study the educational problems in Turkey and to give recommendations for their solutions.

The one recommendation that lead to development of the Home Economics project was stated in a contract made between United States (F.O.A.), Board of Regents of University of Nebraska and Government of Turkey on the 23rd of August 1954, in outlining the scope of services and activities to be rendered for the purpose of strengthening the educational, research and extension programs at Ankara University. This mentioned Home Economics and included the establishing of new departments where necessary.

The first record regarding the adding of Home Economics to the Faculty of Agriculture, Ankara University is found in a report on the proposed contract between the Ministry of Education, Ankara University, F.O.A. and the University of Nebraska, June 28, 1954.

Ankara University is regarded as an independent educational institution in Turkey although the Minister of Education is the honorary president. The institution receives its funds directly from Parliament.

The structure of the University is patterned after the classical Universities of Europe. German professors dominated the Agriculture Faculty especially for many years. Very little cooperation with agricultural research and extension work was carried on with the Ministry of Agriculture.

Each faculty, like colleges of Agriculture in the States, elects its own Dean for a period of two years, thus automatically rotating Deanship. The governing body of the Agriculture Faculty is the Professors Council and the governing body of the University is the University Senate. One major difference in the structure of Ankara University is that each faculty is located in a different part of the city.

The Faculty of Agriculture is composed of 40 professors, 20 docents or assistant professors, and 76 assistants. It has nine majors with a

total enrollment of 1,042.

Early History of Home Economics in Turkey

Girl's and Women's Vocational Education in Turkey is said to have had its beginning as early as 1864 when Mithat Pasa opened the first Girl's School in Ruscuk, then a part of the Ottoman Empire. In 1869, another school was opened in Istanbul (Constantinople), and by 1886, three more were added in nearby areas. The aim was to teach women and girls those skills which they could use in their homes. These schools became the embryonic core from which the Girl's Institutes (nearly 125 in 1965) and the Women's and Girl's Vocational and Technical Education of today grew.

Shortly after the founding of the present Turkish Republic in 1923, experts from the United States of America, Germany and Belgium were brought in to advise on vocational education. All these experts concentrated primarily upon the education for boys and men. The girls of the country were being sent to Europe for study in vocational, home-making or finishing schools.

In the 1930's when the Girls' Institutes came into being as an official educational pattern for women, six institutes existed. The program consisted primarily of embroidery, flower making and sewing.

Girls' and Women's vocational programs have grown to include nearly 125 Girls' Institutes, with over 29,000 students through a 35 year period. Evening programs, Middle schools, teacher training schools, village courses, Extension Home Economics training and finally the Home Economics Department at the University have been added.

The problem of girls' education in Turkey is acute as shown by statistical figures. It is shown that, of 100% of the girls born, only about 75% enter school; of the 100% of those girls entering school, only 31% finish Primary school. Just a trifle over 2% of the girls entering school go on to High School or higher education.

In 1952, Home Economics Extension work was first established in Turkey. The two first participants, Suat Kundak and Inayet Berkman, were sent to the United States to study in May 1952. They returned in June 1953 and became the first provincial Home Agents. In 1953, Dr. Katherine Holtzclaw, a U.S. Home Economics specialist, presented the first shortcourse for Extension Home Agents in Turkey.

In 1954, the first American Home Economics supervisor, Ruby Simpson, arrived and assisted the Ministry of Agriculture in establishing the training center for Home Agents at Bornova. Suat Kundak was in charge of this training center.

The next procedure recommended was the establishment of Home Economics training in the University of Ankara to provide training (1) for Extension specialists and supervisors to serve at the National

and Provincial level, (2) for research workers to deal specifically with family living problems in Turkey, and (3) for homemaking at the college level. No action was taken on this recommendation until 1955.

A major in Home Economics was established at Ege University in 1959 but closed in 1963 due to lack of trained staff and physical facilities. The major only included 32 credits in Home Economics which was insufficient training to become a Home Economist.

The problems of rural and urban women are the same all over the world. The solutions lie in making available to these families the knowledge of modern science, so that they may effectively discharge their duties in the home and in society. Difficulty in obtaining and managing an adequate income, lack of information about proper methods of cooking and about modern health amenities, shortage of facilities for sending children to school, lack of protected water supply, low economic conditions that make it impossible to get proper housing, and absence of family planning--these are but a few of the problems facing Turkish women today.

The urgent need, therefore, is knowledge and practical training to fully utilize available resources for effective home living. This was the challenge to those who were to help in the development of the Home Economics Department at the Agriculture Faculty, Ankara University.

SECOND PERIOD 1955 - 1956

"Planting the Seed"

General Situation in 1955

Increasing emphasis was being placed upon the modernizing of agriculture in Turkey in order to help farmers produce more and better food, feed and fiber, thus enabling them to increase their income and contributing to strengthening the economy of the nation.

This increased emphasis on modernization of farming methods was not accompanied by increased assistance to village families to help them improve their home, family life, standards of nutrition or hygiene, etc. All of these factors have a direct and great influence upon the productivity of agriculture and the welfare of the nation.

The Home Economics training being offered at the Girls Technical Schools, Girls' Institutes and Teacher Training Schools were not meeting the present needs for training personnel. The curricula of these schools were not designed to train personnel to meet needs of families and no provision was made for continued education and specialization after completing these low level (about eighth grade) schools. University training was available in most areas of agriculture and a system of major fields of study in agriculture was being set up. There was no provision for Home Economics training at the university level and no opportunity for improving the professional standing of Home Economics or recognition of

Home Economics as a profession or even as a necessity as an aid to improve family living.

The basic problem to be solved in Turkey was the improvement of the level of living of Turkish families. The solution of this problem was impossible because there was no organized education program to give this kind of training and knowledge.

Therefore, according to records of the Nebraska/Ankara University/ I.C.A. Contract, a Home Economics project including the establishment of a Home Economics Department was set up (Project CR 44-69-16).

The contract between the U.S.A./Nebraska/Ankara University was drawn up on March 28, 1955. In part, the agreement included these items: to render technical advice and assistance requested by the Government of Turkey for developing and strengthening Ankara University's program in agriculture. Also, to assist the Government of Turkey to develop adequate facilities and a competent faculty to provide college level training and graduate training to an increasing number of Turkish students. The University of Nebraska would in turn provide agricultural technicians needed to service the developing economy of Turkey.

In Appendix B-1 to Project No. 1, Home Economics as indicated in Section III E-2 Training in Turkey, Project 1, the request came from the Faculty of Agriculture, Ankara University, to provide the assistance of one well qualified Home Economist to assist the faculty in planning, organizing and developing a new Department of Home Economics.

Project Description

A. Objective: "The objective of this project is the establishment of a new Department of Home Economics within the College of Agriculture of the University of Ankara, which will offer university level courses in Home Economics designed to provide young Turkish women with the necessary technical and practical knowledge essential to enable them to successfully fill such positions as home economics teachers at the university level or in agricultural schools; Home Economics Extension Specialists on the national, provincial or county levels; Home Economists in industry or in private or governmental research positions and/or leaders in their community wherever they may be."

Basically the project had a twofold purpose:

1. To develop within the Faculty of Agriculture, Ankara University, a Home Economics Department at the university level; and

2. To provide physical facilities to house the newly established Home Economics Department.

B. The activities that were outlined and to be undertaken by the newly established Department are briefly reviewed.

A four year curriculum leading to a university degree in Home Economics was to be set up. The undergraduate work was to be the first phase undertaken. In addition to the undergraduate program, provisions were to be made at the earliest possible date for graduate study in specific areas of Home Economics.

The Department was to initiate, at an early date, research projects designed to find practical solutions to present day Turkish problems in the field of Home Economics. The Home Economics staff was to take leadership in planning, organizing, supervising, evaluating and publishing results of such research studies.

The Department in cooperation with the Ministry of Agriculture will plan, organize and conduct short courses in specific phases of Home Economics during the summer months for Ministry of Agriculture personnel. These courses were to be designed primarily to provide additional technical training for Extension personnel and teachers.

Basically, these procedures and plans were very sound. However, the time limit for accomplishment was very much overexaggerated. It was humanly impossible in a developing country to accomplish all of this project within the time stated (by September 1956). The organization and administration of the project is discussed in the following section.

The actual step by step accomplishments will be outlined in section 4 of this report under "Implementation of Program".

THIRD PERIOD 1956 - 1958

"Cultivating the Soil"

Organization of Home Economics Department

The Department of Home Economics was established as a separate department within the Faculty of Agriculture at Ankara University in June 1955. The announcement to the effect was indicated on page 19 of the Ankara Universitesi, Ziratt Fakultesi Rehberi, 1955, with Dean Sabahattin Ozbek as Acting Chairman for the Department and Doc. Dr. Rezan Sahinkaya as a member of the staff.

In organizing the Department, the Faculty of Agriculture agreed to make the arrangements necessary to establish the new department.

Staffing

The Department of Home Economics was to be under the leadership of a Department Chairman who would be a woman trained in Home Economics. The Department Chairman would be responsible for coordinating all activities undertaken by, or in connection with, the Department. The Chairman was not to be appointed until a minimum of three staff members had been trained in the States and back on the job for at least one year and had

demonstrated their capability. (However, this procedure could not be followed as there were many other factors to consider in selecting a chairman.)

When the project was started, the staff was selected from the Faculty of Agriculture, thus, they were without Home Economics training. Doc. Sahinkaya had all her basic training in Animal Husbandry and had no experience other than Faculty Assistantship. She was sent as a participant to Nebraska University in October 1955 to study Family Relationships and Child Development. So in the beginning, Professor S. Ozbek assumed leadership and supervision of the Department.

The initial staff was to be comprised of four or five of the best qualified women obtainable. It was hopeful that one of these would eventually become Chairman of the Department and all were to obtain professorial rank as soon as possible.

The final selection of Charter staff members in addition to the Docent was:

1. Suat Kundak, a graduate from the Faculty of Agriculture, worked in the Agricultural Economics Section of the Ministry of Agriculture three years; served as assistant in the Entomology Department, Istanbul, for three years; one of the first women to be sent to the United States for training in Home Economics. She attended the University of Tennessee 1952-1953 and gained 37 credit hours. She returned to Turkey and worked as a Home Agent in Bursa for one year; and in 1954, helped establish the Home Economics Training Center at Bornova. She was in charge of this entire program. In November 1956, Miss Kundak was transferred to Ankara University, Department of Home Economics. In January 1957, she was sent as a participant to Purdue University to study Family Economics and Home Management.

2. Ayse Erkut, a graduate from the Faculty of Agriculture, served as assistant in the Entomology Department, Ankara; also, was one of the first women to be sent to the United States for Home Economics training. She went to the University of Tennessee in 1953 and received her Master's Degree in Home Economics in Foods and Nutrition in 1955. She completed 45 credit hours in Home Economics. Upon her return to Turkey, she taught at Bornova Training Center for one year. In September 1956, she was transferred to Ankara University, Home Economics Department. In January 1957, she was sent to Kansas State University as a participant to study for her doctorate degree in Foods and Nutrition.

3. Refika Dogan, a graduate of the Faculty of Agriculture. She was appointed assistant in Home Economics in January 1958.

4. Sevim Guney was appointed as assistant in the Home Economics Department July 1958. She graduated from the Faculty of Agriculture and worked for one year in the Ministry of Agriculture in the Economic Section before joining the Home Economics staff.

In addition to the above professional staff, professors and assistant professors from other departments of the University were to teach courses related to Home Economics and/or supporting courses.

Arrangements were to be made with teachers in the Ankara Girls' Technical School or Teachers Training School to instruct in courses should this prove necessary. (No record that this was ever done.)

Provision for Training Staff

All of the aforementioned staff members were sent to the United States for training in Home Economics.

1. October 1955, Doc. Sahinkaya went to Nebraska University. She did not take work toward any degree but records show she enrolled in three Home Economics courses in Child Care and Family Relations, two courses in German and two Statistical courses. She returned to Ankara University January 1, 1958.

2. Suat Kundak went to Purdue University in January 1957 where she earned her Master's and Doctorate's degrees in Home Management and Family Economics. She earned 85 credit hours in Home Economics courses and completed a Master's Thesis entitled, "Factors Related to the Use of Time in Homemaking Activities by Turkish Housewives", and completed her Doctorate degree by presenting a thesis on "Factors Related Significantly to Financial Security of Indiana Farm Families". She returned to Ankara University March 1960.

3. Ayse Erkut went to Manhattan, Kansas as a participant to study Foods and Nutrition in January 1957. She completed 86 credit hours in Home Economics and gained her Doctorate degree. Her thesis was on "A Study of the Effects of Ingredients, Cooking Methods, and Holding Time on the Rate of Growth of Staphylococcus in Lamb Patties". She returned to Ankara University April 1960.

4. Refika Dogan was sent as a participant to Nebraska University in January 1958. She was to study Child Care. After two years study, her contract was not renewed but she stayed on to study Home Economics Education. She gained her Master's degree and was working on her Doctorate. Three weeks before time set for departure to Turkey, she was accidentally killed in a fall.

The University of Nebraska made available one very well qualified Home Economist, Mary Rokahr, to assist in establishing the Department. She assisted in planning, organizing, initiating activities and teaching an orientation course. The architectural plans for the building were completed. Miss Rokahr came to Turkey in July 1956 and departed July 1958. During this initial period, a very fundamental foundation was laid.

Early Curriculum

According to the original project agreement, the Faculty of

Agriculture was to announce the availability of courses leading to a University Degree in Home Economics sufficiently in advance of the 1956 fall semester so that interested students could enroll. The first courses were to start at the beginning of fall semester 1956. However, records show that only one class in Orientation of Home Economics open to all students was given in 1956. In spring 1957, a Seminar was given.

There was a lengthy delay in enrolling Home Economics students due to lack of staff and physical facilities. It appears that September 1956 was not a very realistic date because at that time there were no trained staff members except the American Home Economist and no physical facilities to house the newly created department.

Physical Facilities

The University was to provide two or more offices for the Home Economics staff and provide secretarial space. Two small offices were given for this purpose by the Horticultural Department. No provisions were made for classrooms or laboratories for immediate use. These factors proved to be critical problems until the Home Economics building was constructed.

In addition to offices, provisions were set up for a Home Management House, ground space for gardening, and space for poultry raising and bee keeping. There is no record that any of the last provisions were provided or even considered.

According to the first agreement, an adequate building including necessary classrooms, laboratories, offices, and other needed space was to be equipped and ready for occupancy no later than October 1, 1956. This was not completed until October 1963, which was a more realistic date.

Equipping Building

As planned in the original agreement, the necessary equipment, furniture and materials were to be procured and installed in the newly built Home Economics building not later than October 1, 1956. This feat would have been utterly impossible at that time because no funds or building plans were available. Turkish construction just cannot be done overnight. This was finally accomplished October 22, 1963.

The equipment that was to be procured from the United States under special provision from the University of Nebraska was to be ordered no later than March 1, 1956. The revised order was sent in on May 1962. The order was held up until definite assurance was given that there would be a building and a place to use the equipment.

Financial Support

It was mutually agreed in Ankara/Nebraska Work Program Project 1 that the project would be financed as follows:

1. All dollar costs connected with U.S. personnel coming to Turkey and Turkish personnel in the U.S., not to exceed those indicated in budget summary, appendix D, will be paid by the University of Nebraska under its contract with I.C.A.

2. The Turkish lira costs connected with the U.S. personnel in Turkey, not to exceed those indicated in budget summary, will be paid from the "General Trust Fund" administered by I.C.A. provided that, if adequate funds are not deposited by the Turkish government, the University of Ankara will undertake to make the necessary funds available.

3. All costs connected with the implementation of the project, except those mentioned above, will be the responsibility of the Faculty of Agriculture.

The financial support for the construction of physical facilities was outlined later and will be described in Section 4 of this report.

FOURTH PERIOD 1959 - 1965

"Expanding the Field"

Implementation of the Program

Status of Program 1959

The second Home Economics advisor to the University of Nebraska/ Ankara program in Home Economics assumed duties January 4, 1959. Six months time had elapsed since Miss Mary Rokahr, first advisor, left the program in July 1958.

There was the usual period of confusion in trying to equate the advances and progress that had been made in the development of the Department of Home Economics at Ankara University as indicated by previous reports and what the actual situation was. Consideration was given that there was a great possibility that the program had deteriorated considerably during the period July 1, 1958 and January 1959.

Actually the situation was this: There were two staff members, Doc. Dr. Sahinkaya, who recently returned from the States, and one new assistant, Sevim Guney, who could not speak one word of English; two small offices. One class was being taught in Home Economics Philosophy and Orientation to 114 students (101 boys, 13 girls), and one Seminar for 16 students in Agricultural Economics. Three staff members were in the States for training. Prof. Dr. Sabahattin Ozbek, Horticulture Department, was serving as Chairman of the Department. The architectural plans for the building had been accepted.

This advisor is certain that Miss Rokahr had done an excellent job of "selling" and informing the staff of Home Economics of all its implications, but during the first four months, this advisor had to explain

and reconfirm all that had been said before.

The greatest part of the first six months was spent in becoming acquainted with (1) University of Ankara and Ege University--their staff, organization and administration; (2) the organization and development of Home Economics at the Agriculture Faculty and in the National Extension program; (3) Nebraska/Ankara University Agreement; (4) the I.C.A. organization and staff; and (5) relationships among these organizations.

There was an absolute lack of any information regarding the living conditions of Turkish families. There was such a wide gap between what the advisor was told and what she found that, one of the first major projects was a field study on the "Living Conditions of Turkish Families". This study was conducted by Seminar students. In addition, the advisor visited many villages in several different areas of Turkey to gain firsthand information about living conditions.

The help given by all members of the Nebraska University staff proved most valuable and helped this advisor maintain an optimistic outlook for the job ahead.

The following section, in part, will present some of the accomplishments and activities in implementing the Home Economics program.

Staffing

When this advisor arrived in January 1959, the only staff members were: Doc. Dr. Sahinkaya and one assistant, Sevim Guney. Prof. Dr. Sabahattin Ozbek was serving as acting chairman. Two months later he left to assume Rectorship of Ataturk University. His wife, Prof. Dr. N. Ozbek, Soils, assumed chairmanship of the Department.

Building an adequate Home Economics staff has been one of the most critical problems in the development of the Department. Rules and policies of the University are such that participants returning from the States with Doctorate degrees are not permitted to teach. They must first obtain their Docent degree which in Turkey is considered a step higher but in reality is actually not much beyond our Bachelor's degree. No course work is required but a research project is carried out. In the United States, we certainly cannot afford the luxury of having well trained people sit idly by, especially those with Doctorate degrees.

It might have been wise, if such an agreement could have been set forth when planning the participant, to stipulate that "any participant gaining a Doctorate degree in the States could present the same thesis in Turkey to gain her Docent degree". At least some recognition should be taken at Ankara University for advanced training in the States. At the present, a Doctorate degree gained in the States is of the same status as a Doctorate degree given here.

Recruitment of assistants for the Home Economics Department has not been given a very high priority by the Faculty of Agriculture. Two

assistants were given in 1963. In 1964, public announcement was made for two more but there were no desirable applicants. In 1965, two more assistant positions were opened. These two assistants will be selected from the first Home Economics graduates of this year.

In April, there were three well trained and efficient people who wished to join the staff but several reasons prevented them; namely, at the time, there were no assistant kadro or positions open.

The women are: (1) Dr. Ayse Baysol, who just returned from the States in April 1965 after completing her Doctorate at Wisconsin University; (2) Suna Goksu, who returned to Ankara May 1965 after receiving her Master's degree at the University of Nebraska and spending almost two years in Hong Kong on a special feeding research project; and (3) Mrs. Engin Onder, who received her training and Bachelor's degree at the University of Tennessee and has been serving as interpreter to the American Home Economics Advisor of A.I.D.

In addition to these well trained people, five of the graduating seniors wish to join the staff. Two will be selected but the other three, highly efficient, women must seek elsewhere for work. We have tried to secure assistantships for them but, last year in the entire Faculty of Agriculture only three assistantships were given, so the chances of securing five for Home Economics were nil.

Present Staff Situation

Prof. Tevfik Esberk has served as Chairman of the Home Economics Department since November 1961. He has contributed in a large degree to the present development because of his excellent leadership, wisdom and guidance. He was elected Dean of the Agriculture Faculty in November 1964. The heavy and varied responsibilities of the Deanship cuts deeply into the time that he can spend developing the Home Economics Department. This is a most critical period and needs the constant guidance of a person who can devote full time to the job. We are most grateful for Dean Esberk's leadership but the time is here to have a Chairman who can give major time to Home Economics. After his term of serving as Dean, it is hoped that he might elect to become fulltime Chairman.

Prof. Dr. E. Morrow Lebedeff has served as consultant and advisor to the Home Economics Department since January 1959. The contract will terminate on July 15, 1965. Her work was primarily concerned with the administration of the Department, the planning of curriculum, equipment programs, physical facilities and research projects, the supervision and guidance of course work and course activities, and a limited amount of teaching.

Doc. Dr. Rezan Sahinkaya has held the position of Docent since the birth of Home Economics at Ankara University. She is responsible for the teaching of the service course in Home Economics open to students from other majors; a Family Relationships course; a Child Development course and Child Psychology.

Dr. Suat Kundak returned to the staff in 1960. She carries the major administrative and academic load of the Department under the guidance of Prof. Esberk and Prof. Morrow. She is the most capable from the standpoint of training, understanding of Home Economics, and down right intelligence and practicability. Her teaching load is heavy; it includes courses in Home Management, Work Simplification, Family Economics, Household Equipment, Extension Methods, translator for Research and Teaching methods, and advisor for Home Management House. In addition, she has charge of summer practice for students and consults with all research workers.

This advisor would have no qualms about the full development of the Department with adequately trained staff under the leadership of Suat. However, present University law prevents her from legally teaching which is a distinct handicap as she is the most highly trained person on the staff in technical knowledge, practical experience, and complete understanding of the needs of Turkish families.

With such a heavy load of teaching and responsibilities, she has not been able to complete her Docent thesis. Every effort should be made to relieve her of some of her work to allow time to complete her thesis.

Dr. Ayse Erkut returned to the staff in 1960 after obtaining her Doctorate in Foods and Nutrition. She, too, has a very heavy teaching load, being responsible for courses in Food Preparation, Nutrition I, Experimental Cookery, Diet and Disease, and Advanced Nutrition. Introducing laboratory work has been one of her greatest problems. There is no budget for operating laboratories so various means have had to be devised.

The Food and the Nutrition laboratories are well equipped, but time has been the limiting factor in the full utilization. The type of program conducted by Ayse is highly commendable but it is utterly impossible for her to do the job alone. Ayse, also, devotes considerable time to assist in administrative procedures and translations. Her Docent thesis will be presented in March 1966.

Dr. Sevim Guney Erel was the first staff member to receive her Doctorate degree in Home Economics from Ankara University. She then spent one year at North Dakota State University studying courses in basic Home Economics with special emphasis on Housing.

She rejoined the staff in October 1964. She is responsible for two courses, Housing, and Home Furnishing. In addition, she translates for the Clothing and Textile class. She assists in considerable translation for the Department.

Assistant Seniha Ozbas joined the staff in August 1963. She graduated from Ege University and had taken the limited Home Economics courses offered there. She is a very studious and hard working person and, after a few years experience, will be a fine addition to the staff.

She assists Dr. Erkert in Nutrition and Foods laboratories, and Dr. Kundak in Home Management House and runs errands for everyone.

She has collected all the data for her Doctorate degree and, if all goes well, will present it for acceptance in March 1966.

Kamuran Dogan, from Ataturk University, was accepted as assistant in the Department September 1963. She worked until April 1964 and was asked to return to Ataturk. Because of administrative difficulties, she was not able to obtain permission to leave Ataturk. As a result, she left both Universities and went to Afghanistan and was married. She was a most capable girl. She translated one clothing book and served as interpreter for two courses.

There are three Doctorate assistants, Dr. Neriman Gurtanin, Dr. Firdevs Ertem, and Dr. Tekin Altinbas, in the Fiber Technology division of our Department. To date, they have done no teaching but have assisted in fiber technology courses and the village handicraft course. It is hoped that they can assume some major responsibility in the coming year to help lessen the teaching and laboratory load of the Home Economics staff.

We have "borrowed" several lecturers from Hacettepe Hospital and Health Center to assist in courses where there were no trained personnel to do the job. The Government Nursery provided laboratory accommodations for the Child Development course. This excellent cooperation from other faculties has been a great help and it would have been nearly impossible to carry on the program if it had not been available.

In general, the present staff is well trained in formal Home Economics, with the exception of the docent. In order to function more effectively, they need added personnel as outlined in suggestions at the end of this report.

Curriculum

One of the hardest tasks was to draft a curriculum that would be acceptable to the Agricultural Faculty at Ankara University.

The first curriculum that was outlined and presented to Ankara University (work program, Appendix E to Project No. 1) was not acceptable as it was not planned within the framework of the University. The Faculty felt it was too Americanized and not adapted to Turkish education policies. Therefore, it was totally rejected. This curriculum had been presented in 1958.

Having this background information and knowing the attitudes and feelings of the Faculty, we proceeded to work out a brand new curriculum merely using good basic criteria for curriculum development as useful guides.

First, it was necessary to discuss carefully what kind of

curriculum was in effect for other majors; such as, was there a "core curriculum for all majors and were there any governing rules and procedures followed by all majors". With this basic background information, we attempted to formulate a Home Economics curriculum. We readily learned that a "copied" program from any university in the States would not be acceptable, that it definitely had to be built into Ankara University framework. So the only real guiding line was that major subjects could be taught only in the third and fourth years because the first two years were given over to required sciences and agricultural subjects.

Our first step was to actually study the patterns of living in Turkey as each country has its own life and way of living. This had to be understood before a program of study could be devised to help improve living conditions. During the first two years of this advisor's tour, she visited nearly 300 villages in all areas of Turkey except the East Central and Southeast areas. This way the first basic principle of curriculum planning was practiced because after gaining this firsthand information, the program was definitely geared to the needs of the country.

All of the staff members plus three professors from the Agriculture Faculty assisted in drafting the proposed courses. This system involved some of the men of the Faculty and thus secured backing when presented to the Professors' Council for approval.

In planning the curriculum, the human and material resources that were available were ever kept in mind; for example, For what courses were personnel available? What facilities were available? What financial aid or budget would be provided? What methods of teaching could profitably be employed because of lack of textbooks and limited visual aids? In each step, we stressed practicability and the realistic rather than the idealistic.

The other factor given considerable attention was the flexibility of the courses. Changes were inevitable as the program went into effect, so considerable latitude was given for these changes.

The curriculum was first presented to the Professors' Council in May 1961. After a lengthy discussion of six hours, it was suggested that several changes be made. The main objection was voiced that Home Economics was not of "academic respectability" and they could not sense the relationship of Home Economics to Agriculture.

The Home Economics staff spent nearly four months visiting each and every professor and actually selling them on Home Economics and showing the actual relationship of Home Economics and Agriculture. Also, discussing the interrelatedness of each Agriculture major to Home Economics.

As a result of this extensive educating period, a revised curriculum was drafted and presented with many additional advantages gained

over the first curriculum; namely, three Home Economics courses to be taught in the second year (heretofore only majors could be taught in third and fourth years), six related agricultural courses were planned especially for Home Economics students, and the required Agriculture courses were reduced to a minimum.

The curriculum was finally accepted on May 14, 1962 by the entire Faculty and also accepted by the University Senate in June 1962.

An outline of the curriculum is given below.

Ankara Universitesi Ziraat Fakultesi
Major: Home Economics

Curriculum	Total Credits	Semester Credits	Semester
A. Preparatory Courses	44		
1. Required subjects:			
Economics		4	1 & 2
Mathematics		6	1 & 2
Physics		8	1 & 2
Zoology		8	1 & 2
Botany		8	1 & 2
Chemistry		10	1 & 2
2. Elective subjects:	4		
Climate Science		4	1 & 2
Economic Geography		4	1 & 2
B. Complementary Subjects			
1. Required subjects:	61.5		
Chemistry		8	3 & 4
Microbiology		3	3
Family Food Preservation		2	5
Milk and Milk Products		6	5 & 6
Biometry		4	6
Landscaping		3	4
Housing		3	4
Animal Nutrition		2	5 & 6
Agriculture Extension		6,5	7 & 8
Agriculture Economics		6	3 & 4
Human Anatomy and Phsyiology		5	3 & 4
Gardening		3	6
Civil Law		2	5
Industrial Crops		2	4
Household Tools & Equipment		3	3
Fiber Technology		3	5

Curriculum	Total Credits	Semester Credits	Semester
2. Elective subjects:	6		
Plant Nutrition		4	5 & 6
Horticulture		5	3 & 4
Soil Science		2	3 & 4
Fermentation Technology		6	3 & 4
Animal Husbandry		6	5 & 6
C. Major Subjects	67		
Seminar		2	7 & 8
Family Food & Nutrition		14	3, 4, 5, 6, 7&8
Home Management		8	5, 6, 7 & 8
Clothing & Textiles		7	3, 4 & 7
Human Relations & Child Care		8	5, 6, 7 & 8
Family Health		4	3 & 4
Housing & Household Equipment and Home Furnishings		8	6, 7 & 8
Family Economics and Consumer Problems		4	7 & 8
Research & Teaching Methods		3	8
Home Economics Extension		2	6
Village Crafts		3	7
Child Psychology		4	5 & 6

Language	18.0
Practice work	20.0
Thesis	4.0
	42.0

Required Science	44.0
Elected Science	4.0
Complementary Courses	61.5
Elective Complementary Courses	6.0
Major Courses	67.0
	182.5

Grand total 224.5

The practice work consists of 90 days of practical experience in selected areas of work. The program followed thus far is: Between the second and third years, the students work six weeks in the summer; two weeks at the State Farm to gain actual experience in gardening, poultry raising, and care of small animals, and four weeks in a province working with a Home Extension Agent.

Between the third and fourth years, the students work another six weeks during the summer. A special project of two weeks duration is selected and again they spend four weeks working with Home Extension Agents.

The major difficulty in carrying out a four year program is the length of the semesters because, at best, each semester is only three months with many and varied holidays. The fourth month of each semester

is given over entirely to examinations. It is strongly recommended that this procedure be changed if possible in order that each semester can have four months of actual class work. In adding this up, four years at Ankara University only includes 24 months as against our traditional 36 months.

We did not take any other country's curriculum as a model, but did take measures and items which conformed to Turkey's various requirements and capabilities to build the most suitable curriculum to solve its educational problems in family living.

This endeavor was successful because the faculty realized that the curriculum was not a copy or imitation from any foreign country, but that cognizance was taken of Turkey's national, social cultural and economic structure in the formulation of the present curriculum.

As the impetus to improve the Turkish educational system along the lines recommended by the Planning Board, it is hoped that the Home Economics program will further:

1. Encourage staff members to use a variety of methods of teaching, to appraise different methods of teaching in relation to the principles of human growth and learning, and to explore the potentialities of the problem solving method in learning and teaching as a means of helping students develop the ability to use information in coping with new situations as they arise in everyday living.

2. Encourage continuous evaluation of the curriculum in terms of the educational needs of students in a changing society and in terms of the nation's demand for professionally trained leaders in Home Economics.

3. Encourage staff members to use a variety of testing and evaluative techniques to appraise student progress in terms of desirable changes in behavior patterns and attainment of knowledge and skills instead of the present memory examination system.

4. Encourage staff members to use outside facilities, such as: museums, textile institutes and factories, food processing plants, etc., to supplement the facilities provided by the Agriculture Faculty; and

5. Encourage staff members to cooperate with other ministries and organizations in planning learning experiences for students which can be provided in a realistic setting through cooperation.

Training

1. Undergraduate Training

The first course, Philosophy and Orientation of Home Economics, given by a Home Economics staff member was a required subject for four majors in the Agriculture Faculty. This course was given from 1957 to 1961. Then, in 1962, it became a required course only for the general Agriculture major. This course has continued to the present time.

A Seminar was given each summer semester for senior students in Agricultural Economics from 1958-1962.

In November 1961, the Home Economics major was opened and the full quota of 10 students was enrolled for the first year.

In 1962 and 1963, the first Home Economics courses were given to sophomore students in the Home Economic major. The first year, 1961-1962, all major students took only required science courses. The first courses were in Food and Nutrition, Clothing and Textiles, and Family Health.

During the third and fourth year, 1963-1964-1965, all major students were taking only Home Economics.

So at the closing of the summer semester May 26, 1965, the entire four year curriculum (see section C) had been completed. The first students in Turkey had completed four years of Home Economics at the University level by completing eight semesters of work and accumulating 225 credit semester hours.

Total undergraduate enrollment: 13 Seniors; 19 Juniors; 30 Sophomores and 33 Freshmen.

2. Graduate Training

Special private tutoring in courses have been done for graduate students as well as well-planned self-educative reading courses. All of the graduate students lacked basic Home Economic training as they had graduated from the Faculty of Agriculture. Fortunately, they had had good basic courses in Food Technology, Plant and Animal Nutrition, Milk and Milk Products, and Fiber Technology.

Three graduate students have received their Doctorate degrees in Home Economics since 1961.

Three graduate students have been assisted in preparing their Docent degrees which will be presented in March 1966.

Three assistants are now in the process of preparing their Doctorate degrees in Home Economics.

One member of the staff applied for Professorial rank but was rejected by the Faculty.

Specific graduate course work is planned when adequate and well-trained personnel is available.

3. Short Courses

The Department has cooperated very closely with the Ministries of Education, Agriculture, Health, and Resettlement and Rehabilitation, in

conducting workshops and seminars for their personnel working in Home Economics.

Each year since 1959, the staff has assisted with one Seminar for Extension Home Agents and one Seminar for Vocational Educational Home Economics teachers.

In 1961, nearly two months were spent on workshops held at the five different Technical Agricultural Schools in training Home Economics teachers.

The staff has assisted with two International Seminars on Nutrition, one International and two National Seminars on Soybeans.

Many one day conferences and workshops for training purposes have been held with each of the Ministries of Education, Health, and Resettlement and Rehabilitation.

When additional and adequately trained staff is available, it is hoped that regular planned and well organized short courses will be designed and offered to provide additional training for present field staff in Extension and teaching.

Short courses in specific phases of Home Economics have been held at Ege University during the months of February and May 1959-1963.

In order to meet the need for adequately trained personnel at all levels of the educational system, it is hoped that the University will further:

1. Focus attention first on the development of an academically sound and functional undergraduate program designed to develop competencies needed to improve home and family life.

2. Develop post-graduate programs in all areas of Home Economics as soon as the undergraduate programs are sufficiently strong; and

3. Increase the opportunities for in-service training through using a variety of schemes, such as: conference, seminars, workshops, short courses or night classes for teachers.

Research

Good research is the basic fundamental requisite for the development of any educational program especially in building a new curriculum.

Research provides the basic information and data for classroom teaching and furnishes pertinent information on the cultural, economic, social and educational status of the people in the country.

The barriers between the Faculty of Agriculture and rural population in Turkey are too great. Too often well-meaning University Professors

and staff members, who are not equipped with necessary knowledge or background information, have imposed purely theoretical schemes on rural families. Thus, all the research done so far by staff members have been in field studies rather than laboratory experiments.

When the Department was established at Ankara University, there was little, if any, available documented research on living conditions in Turkey. Therefore, the necessary procedures in the field of research was very clear. Before proceeding with the program of research that was needed, it was necessary to chisel away at many of the old and accepted traditional concepts of research that were in effect at Agriculture Faculty.

Considerable opposition was given to this method because, prior to this time, most of the research done at the University was a matter of gathering materials for a thesis, to be used only for individual academic advancement. The major emphasis was upon presentation of material which would satisfy the members of the jury rather than upon investigations and study to improve living conditions and practices. Little thought was given to how research could benefit the families in Turkey or how it could help the development of the nation.

A real effort has been made by the Home Economics staff to collect basic background material to be used in formulating an education program.

Research Topics to Date:

1. "Living Patterns of Turkish Families", Seminar and Senior students.

2. "A Study of the Social, Physical, and Economic Aspects of Housing, Home Furnishing, and Household Equipment as it Affects Living in Turkish Villages", Dr. Erel.

3. "An Analysis of the Use of Family Resources (Human and Material) of Village Families for the Improvement of Family Living", Dr. Kundak.

4. "An Analytical Study of Dietary Habits and Generalizations of the Nutritional Status of Village Families", Dr. Erkut.

5. "A Study of Village Women's Clothing Habits, Needs and Preferences in Erzurum Area", Neriman Gorgunay, Ataturk University.

6. "A Study of Relationships of Diets to Health and Physical Appearance in Elementary School Children Grades 1-3 in Erzurum Villages", Birsen Ipek, Ataturk University.

7. "Comparative Study of Food Expenditures of Turkish Factory Workers", Bahriye Bilgir, Ege University.

8. "Analysis of Nutritive Value of Poultry as Found in Four Different Methods of Cooking", Meral Gonul, Ege University.

9. "A Study of the Living Conditions and Food Habits of Families in Cariklar Village in Konya Province", Seniha Ozbas.

10. Each of the thirteen senior students carried out a small research project following the pattern procedures for normative research.

Each researcher gave recommendations for the curriculum in their respective fields after completing her thesis.

It is hoped that research programs in Home Economics will be more rapidly initiated and that these programs will continue to:

1. Furnish information needed for the development of functional programs of instruction at all educational levels.

2. Provide factual information on the effect of change in social and economic conditions on family life and family living patterns in Turkey.

3. Encourage immediate publication and dissemination of research finding.

Physical Facilities

The space given to the Home Economics Department in 1959 was two small offices very meagerly furnished in the Horticulture Department. An additional office was loaned to the advisor about mid-year.

It was very difficult to obtain classroom space for the two classes in Home Economics, Philosophy and Orientation and the Seminar. It seemed that almost everytime the class met, it was shifted to another building or room.

In 1961, the offices were moved to the Fiber Technology Building. Here, we were gien three offices with additional furniture to completely furnish them; also, one large conference room in which to hold our classes.

The first courses taught to Home Economics students were in the Dairy Products laboratory. It took a bit of ingenuity to make this space into a Clothing and Textile laboratory--but it served the purpose.

The architectural plans for the Home Economics Building had been accepted by Ankara/Nebraska/I.C.A. Contract members in September 1957 during the period that Miss Rokahr was serving as advisor.

It wasn't until October 1959 that formal request was made to the Ministry of Education for funds to construct the Home Economics Building at Ankara University.

The final documents were approved and accepted for actual construction of the Home Economics Building on January 20, 1961. The ground was broken for the building on February 24, 1961. On June 12, 1961 a cornerstone laying ceremony was held for the building. The construction continued at normal Turkish speed until about July 1962 when construction was halted for financial reasons until April 1963. The building was finally completed by October 1963.

So briefly in summary, Project CR 44-69-16 was established January 20, 1961 for the purpose of constructing a building and providing physical facilities for the newly formed Home Economics Department at Ankara University.

The project was ammended in May 1961, July 1962, and July 1963, bringing the final total contribution to T.L. 4,600,000. Construction was started February 1961 and completed October 1963. Initial inspection of the building was made in December 1963, changes were recommended, and final acceptance of the building was made May 15, 1964 when permanent residence permit was granted. The formal dedication of the building was March 25, 1964.

The Faculty of Agriculture, Ankara University, can well be proud of these physical facilities for the Home Economics Department as it equals or surpasses many Home Economics Departments in the United States. The building includes a complete Nurserysection, two Foods laboratories, one Nutrition Research laboratory; and, one Clothing and Textile, one Home Management, two Village Handicraft, one Health, and one Home Furnishing, laboratories. There are 18 offices, four classrooms, one seminar room, one large social room and serving kitchen, a teacher's lounge, a large conference room, exhibition hall, library, cafeteria and kitchen, two large refrigeration rooms with 9 units, and numerous storage rooms on the lower basement level.

The new building houses the Home Economics Department, the Agricultural Extension Department, and the Fiber Technology and Village Handicraft Department. In addition to that, the conference room which seats over 200 people is in constant use every day. The spacious and nicely furnished Social Room has become the social center of the entire Agriculture Faculty. The building is serving a real purpose and is being utilized to the utmost.

Equipment

The inventory on hand as of January 1959 was limited to two desks, two chairs, two rugs, one bookcase, and a typewriter. When the Department moved to larger offices in 1961, additional office furniture was added to completely furnish three offices for five staff members. The University of Nebraska donated a very high-priced Monroe Calculator.

The first laboratory supplies and equipment were purchased from our meager budget of 6,000 T.L. in 1961. CARE Mission donated seven sewing machines and 14 sewing kits in order that we could conduct the

regular clothing laboratory. This was the first equipment secured by the Department.

During the early part of 1962, word was given the staff that surplus commodities were available at Ankara and Adana Air Force Bases. With the excellent assistance of D. Siglin, A.I.D. Excess Property Division, we secured a great many valuable items such as chairs, tables, desks, typewriters, adding machine, mimeograph machine, davenports, kitchen equipment, wardrobe cabinets, beds, mattresses, and books.

In August 1961, the revised equipment list of items that was to be purchased by the University of Nebraska (as set up in the original contract) was submitted. After considerable delay and revision, the order was sent to the University of Nebraska in June 1962.

Two orders of bulletins and visual aids were received in August 1962. After this period, our equipment and furnishing accumulated at a rapid pace. All the equipment from the University arrived by December 1963, more commodity surplus has been given the Department, as well as contributions from A.I.D. of discontinued items of bedroom, living and dining room furniture, stoves, desks, and office chairs.

So in October 1963, when the staff moved into the new Home Economics Building, all the needed equipment and furnishings were on hand to take care of all rooms except the nursery, the cafeteria and kitchen.

The University of Ankara supplied the needed office furniture for eight offices, additional files and bookcases for all offices and the library, 300 student chairs, cabinets and cupboards for all laboratories. The last cabinets and cupboards are being installed in the Home Mangement House, Home Management and Clothing and Textiles laboratories this June 1965.

As this report is written, the building is completely equipped with the exception of the cafeteria and play equipment for the nursery.

The Foods and Nutrition laboratories have seven units, starting from the fireplace as a cooking unit, and progressing finally to the unit with an electric stove. The Home Management laboratory has a wide variety of Turkish and American equipment from the simplest to the most modern. The laundry unit starts from the most simple type of equipment and progresses to tub and wringer and finally to electric washing machine and dryer. The clothing laboratory is equipped with hand, treadle and electric sewing machines.

The maintenance of the equipment presents a major problem because there is no direct outlet in Turkey for spare parts and often no qualified repair and maintenance personnel are available. (The Monroe Caluculator is one item of illustration.)

Full utilization has been made of supplies and equipment except in the Nutrition laboratory. Unfortunately, the shipment containing the most

expensive and scientific equipment was badly damaged by water in shipment. Mr. Allen, Chief of Nebraska Group, was finally successful in obtaining a partial settlement from the Insurance Company and an order for replacement of damaged parts will be submitted in July.

The majority of all surplus furniture was refinished and reupholstered and the mattresses were recovered; office chairs and desks were all repaired.

The Home Management House is completely furnished with surplus or donated equipment.

Without the cooperation of the University of Nebraska, Surplus Commodities and A.I.D., in the matter of equipping the building, it would have been almost empty.

The University of Ankara has increased the equipment budget considerably and each year, in addition to small equipment and items needed, major equipment is being added. This year (1965), two refrigerators were purchased.

Plans are underway to completely equip the cafeteria in 1965-1966.

All this adds up to the fact that you must utilize every available resource possible to reach your objective to have an adequately furnished and functional department, when there is not an adequate budget for the purchase of needed equipment.

It is hoped that the physical plant facilities, and equipment needed to further develop a functional program in Home Economics at both the graduate and post-graduate levels will be achieved through the provision of:

1. Well organized and operated cafeteria to promote the serving of nutritionally desirable meals and lunches and to demonstrate good practice in relation to principles of sanitation and management.

2. More equipment, utensils, furniture, accessories, etc., suitable for instructional purposes and representative of the type used in homes of different economic levels and in different localities in Turkey.

3. More teaching aids which contribute to the students' appreciation of past and present developments in Home Economics, such as: collections of old textiles, art objects, rugs, tapestries, utensils, toys and other articles showing the history of Turkish home life as well as handicrafts currently being produced.

4. Greater variety of types of equipment which will familiarize students with: the gradual shift from the traditional to the mechanical devices used in the home, the diversity in patterns of furnishing and equipping homes; and the pace of industrial and mechanical development

in Turkey for the particular benefit of homemakers as consumers.

Department Financing

The present system of budgeting and financing for the Department of Home Economics is not adequate or satisfactory.

In 1959, 1960, and 1961, only T.L. 6,000 were alloted to the Department. In 1961 and 1962, it was increased to T.L. 10,000 and for 1963, to T.L. 30,000. This budget is only for operating expenses and per diem for extra workers. In no year has all the budget been available as our funds are transferred without notice to other departments.

It is impossible to make a realistic budget for the Department because of the many sources and the unannounced amount of funds. Salary comes from one source, laboratory supplies from another, publications from another, equipment and supplies from another, research projects and trips from another, and furniture and repairs from still another.

It would be highly advisable to have a definite budget set up for the yearly operating and maintenance of the Department. As it is now, there seems to be no priority of items and when a real need arises there are no funds. Every ounce of foodstuff purchased must have prior approval of the Dean. This is a great handicap in operating the laboratories in every course.

There are no funds set up for laboratory classes in Food and Nutrition or for the operation of the Home Management House. In addition to the great inconvenience, this places a heavy tax burden on the students and instructors, none of which have sufficient money to share in this way.

There is no set budget for teaching aids, magazines or supplies. Thus, the teaching becomes limited to lectures in many cases. The cafeteria and kitchen are not in operation because funds have not been provided for such. The Faculty is willing to move the present cafeteria to our building, but this is not the purpose of the cafeteria in the Home Economics Building. It is to be used for Institutional Management, special diet studies, and mainly to accomodate Home Economics students.

The handling of the budget can well become one of the educational features of the Home Economics program. Each division of the Department can contribute to the success of the financial management by submitting a yearly budget based on individual needs and operational expenses. As it is now, there is no distribution, but is on a first come first served basis which, of course, does not contribute to sound development of each department.

It is the feeling of this advisor, even though the budget at present is very inadequate, much better use could be made of available funds if the budget was administered differently.

Teaching Aids and Printed Materials

There is almost a total lack of any textbooks, bulletins, or pamphlets published in Turkish. This involves many hours of labor in translating for each lesson prepared for teaching. In addition to translation, considerable adjustment needs to be made to meet Turkish situations.

The need for published materials of all types is urgently needed at the University in order to conduct the program more effectively. As it is now, the only real source of subject matter information is from the instructor as the majority of students cannot read English.

To date, there are no laboratory manuals or guides, few tested recipes for Food and Nutrition classes, and very limited printed information on research procedures or projects.

It is hoped that each staff member will put out in published form, as soon as possible, all available information in their respective areas. Also, that one or two very good and adaptable textbooks in each field of Home Economics be selected after careful evaluation for translation and publication in Turkey. These books can be used by the students as reference books to supplement the present day lectures.

Many improvements have been made the past four years in the use of illustrative materials, charts, and other visual aids. A special person trained in poster- and chart-making has been employed by the Department for the past two years. However, there is need for greater use of illustrative material in the presentation of most lessons.

Some provisions need to be made to supply professional journals and magazines to keep the staff up-to-date and well informed. At present, only three such publications are subscribed to.

It is hoped that National, Provincial, and local governments will give increasing recognition to Home Economics at the educational policy level and that they will increasingly provide for: (1) financial support at all levels of government for improving and expanding the Home Economics program throughout Turkey; and (2) a broad, integrated program of Home Economics in schools, universities, and adult education programs, based on the cooperative efforts of the different ministries working for the improvement of home and family life throughout Turkey.

As the Home Economics program becomes more extensive in scope at the graduate and post-graduate levels, more intensive in the preparation of professionally trained leaders, more comprehensive in the kinds of research undertaken, it is hoped that financial support of the program will further:

1. Provide funds for upgrading teachers' salaries to attract competent persons to the teaching profession and to encourage professional growth and professional activities of staff members.

2. Provide funds for securing teaching aids, professional magazines and supplies in all areas of Home Economics, and for securing new equipment and furnishings needed to enrich and develop the program, as well as provide funds for the maintenance, repair, and replacement of equipment and furnishings currently in use.

3. Provide funds for a new building needed to accommodate the increased enrollment in graduate, post-graduate and research work, such as Home Management House and adequate dormitory space.

4. Provide travel funds for educational conferences and staff visits to other Home Economics Universities on professional assignment or teacher exchange basis.

FIFTH PERIOD 1965 - ____

"Outlook for Continuing Growth and Harvest"

Recommendations for Future Development

Men, women, and youth of the next ten, twenty years or more, will need an increasing amount of information, understanding and skill to help them achieve satisfaction in family and community living. There will be continuous economic, technological and social changes in Turkey. It becomes imperative that the Department of Home Economics train people to give practical and needed knowledge to all families so they can meet the ever changing problems of the times.

How well this kind of program will be built and fitted to the needs of the people will largely depend upon the future development of the Home Economics Department, the kind of leadership given, and the execution of the program.

This advisor is of the opinion that, to ensure the successful development of the Home Economics Department at Ankara University, various changes and innovations are necessary at the Faculty of Agriculture and within the Department itself; namely:

1. It is recommended that every effort be made to fully develop the Home Economics Department at Ankara University before setting up university-level Home Economics training at other universities.

At present, there are three Home Economics staff members at Ege University. They have no classes but are working on their advanced degrees. There are also two assistants at Ataturk University working in the field of Home Economics for advanced degrees. All this staff could be better trained if permitted to act as assistants and attend undergraduate classes and do their research work at Ankara University. Only one of the above five mentioned staff has had any training in Home Economics. It would appear that, by attending basic courses as given at

the University of Ankara, they would at least have some formal training in Home Economics rather than just presenting a research project on some area of Home Economics.

2. As soon as possible, one of the present staff members that possesses the most desirable characteristics, the highest formal training in Home Economics, and has demonstrated her capabilities should be appointed as chairman of the Department. In the development of a new department, the chairman has a full time job. Thus far, we have had eight different acting chairmen since 1955, all of them also serving as chairman in their own major field. They have had no training or experience in Home Economics. This constant changing of leadership has been a great deterrent in the development of the Department.

3. The faculty must provde more trained personnel for the developing department. The full major in Home Economics is in operation but only about half the needed staff is available.

The suggested staffing pattern is given as well as the present staff.

Areas of Home Economics	Available Staff 1965	Additional Staff
Foods & Nutrition (5 courses)	Dr. Ayse Erkut Asst. Seniha Ozbas	2
Clothing & Textiles (2 courses)	Prof. Dr. Morrow Dr. Sevim Erel (Translating)	1
Housing (1 course)	Dr. Sevim Erel	1 (man)
Home Furnishing (1 course)	Dr. Sevim Erel	
Household Equipment (1 course)	Dr. Suat Kundak	
Home Management & Family Economics (4 courses)	Dr. Suat Kundak	2
Family Life & Child Care and Nursery (3 courses)	Doc. Rezan Sakinkaya	1
Institutional Management and Cafeteria	Lecturer now	1
Home Management Practice House	Now in charge Dr. Suat Kundak	1
Home Economics Education and Research Methods	Prof. Dr. Morrow Dr. Kundak (Translating)	1
Seminar	All Staff	
Extension Methods (1 course)	Dr. Suat Kundak	
Family Health (1 course)	Lecturer now	1

In addition, extensive use will have to be made of Agricultural courses now taught at the Faculty of Agriculture, such as: Horticulture, Gardening, Food Technology, Handicraft, Textiles, Small Animal Care, Poultry, Family Law, Human Genetics, and others. It would be most advisable if courses in Sociology, Physchology, Public Speaking, and Turkish Composition and Writing could be included in the curriculum.

4. As can be seen from the foregoing pattern of staffing, several new assistants and staff members are needed at once. The Faculty must recognize that this is a new major and must be provided with adequate personnel. At least five of the graduating Home Economics students wish to remain as assistants. As yet, there is no assurance that they can be employed. Also, as stated under "Personnel", there are three highly trained Home Economists awaiting word to join the staff when and if the current leadership problem is solved and kadro can be acquired for them. As this report is being written, word has been received that two assistant kadros were assigned to Home Economics for July 1965.

5. The administration needs to recognize that formal training in Home Economics is of major importance in order to be qualified to teach. Just holding a Docent or Professorial degree in any agricultural field should not qualify a person to teach in Home Economics without having some formal training in the subject. At present, three staff members, two with undergraduate, Master's Degree and Doctorate Degree in Home Economics, and one year's basic training in Home Economics in the States, are not permitted to legally teach while the Docent with only five hours of formal training in Home Economics in the States and a Docent degree from Ankara University in Animal Husbandry is permitted to teach. Does this make any kind of good educational sense? What really is the purpose of the participant program if it is not to provide training in definite subject areas to prepare participants to provide leadership upon returning to Turkey? This all important problem needs to be analyzed and studied carefully in order that well trained personnel can be used more effectively.

6. Now that facilities are available for Home Economics students, the number of students accepted into the major each year should be increased. We are told at present that is not possible because of limited facilities for science classes. The first year (1961) the major was opened in Home Economics only ten students were allowed entrance; the second year 20; the third year 30; the fourth year 30; and it is rumored that in 1965 it will be cut back to 20 because of overcrowding science classes. The facilities of the Home Economics Building can well accommodate 50 students. (At present, personnel is not adequate to handle more than 30 each year.)

7. The length of the actual school year should be increased from the traditional six months of classes and three full months reserved for examinations to at least eight months of actual classes. Also, investigate the possibility of having three semesters instead of the present two in order to better utilize existing staff, present facilities, and visiting staff from other universities.

8. In many instances, it would be better to have the science and Home Economics courses run concurrently in order to establish a better liaison between technical and practical lessons. There is at present too great a gap between the technical knowledge gained and the actual application of principles to everyday life at Ankara University.

9. Less emphasis should be laid on the importance of the title of

"Agricultural Engineer" given to each graduate from the Agriculture Faculty. This title really means nothing except a "prestige title" as there is not even a major of Agricultural Engineering in the Faculty of Agriculture. At present, the Home Economics graduate is granted a degree in "Agricultural Engineering in Home Economics". The present procedure requires a heavy course load in required agricultural subjects (not necessarily related) thus reducing the number of hours in Home Economics courses. The Agricultural courses should be reduced to a minimum and Home Economics courses increased to the maximum allowing time for courses in Arts and Science, Humanities, and Social Science.

10. That greater emphasis be put on securing textbooks in the Turkish language. Provisions must be made for translations of selected Home Economics books and their publication in Turkish. Many of the staff members have sufficient written material to publish bulletins if not books, so encouragement and provisions for publications should be made. For professional improvement of the staff, some provision must be made to receive professional journals and magazines related to their respective field.

11. A separate operating budget should be set up for laboratory, demonstration, and every day expenses for the Home Economics Department. It would be well to have a firm budget for the overall operations of the Department. For all the years this advisor has been here, we never were able to use more than half the budget that was set up--it seemed to be used for other purposes.

12. The ever-present problem of salary is a major factor. The salaries now offered to assistants, or higher level staff members at the University, is lower than the average chauffeur's salary in Turkey. How can you attract and hold qualified personnel unless adequate salary is paid to them? Something must be done about this as all other agencies and industry are claiming these graduates and staff members at a much higher salary and mostly in fields other than Home Economics.

13. It is recommended that a broad and extensive research program be put into action as soon as possible. At present, there is little or no documented research in the field of Home Economics.

Also, when adequate staff is secured, that a definite program be set up for graduate courses in Home Economics as well as the writing of a thesis for gaining advanced degrees.

14. Last, but certainly not least, is the task of the adminstrators. Today, instead of being concerned with their proper task, namely, the basic problems of implementing the Home Economics program, they are occupied and overwhelmed with individual problems such as personnel problems, discipline, trips, purchasing of small equipment and minor items, and the daily program. Saving the administrative staff from this situation and directing their efforts to the great and vital problems of the development and long time plans of the Department are two of the most urgent tasks to be carried out if Home Economics is to develop at

its full capacity at Ankara University.

Concluding Statements

Setting up a Home Economics Department in a foreign country is a long, slow process beset with many hazards. The lack of realism in assessing the potential effect of the University of Nebraska/U.S.A.I.D. assistance to Ankara University is partly due to the unrealistic original plans and time schedule for completion. There appears to have been a slight exaggeration as to the results planned and the results that could be realistically accomplished under the University of Ankara procedures in too short a time. In addition to this, one must realize the effect of two revolutions on a country and an almost complete change in operating policies of the country's university.

It is with deep humility this advisor leaves a job not yet finished or under the right leadership to carry on by itself. Every effort possible has been made to eliminate the wrong type of leadership and promote the right type of leadership but for unexplained reasons the faculty has not heeded advice given. The selection of the right leadership is an administrative problem and cannot be finalized by an American advisor.

This advisor is ever mindful of the many errors and mistakes made as she floundered for a workable way which wasn't always the most practical or effective. Compromises have been made on all sides.

As a last suggestion, this advisor would like to recommend that the Home Economics Department be converted to a School of Higher Economics granting a University degree in Home Economics with Dr. Suat Kundak as Director, and that she be given adequatly trained staff to carry on the graduate and post-graduate Home Economics program.

In perhaps six or seven years when the School has adequate professors, docents, and assistants, it could be made into a Faculty of Home Economics at Ankara University.

With the present facilities and the further professional training of the present trained staff, and the addition of newly trained staff members, the Faculty of Home Economics would have the potentiality of becoming the outstanding Home Economics Training Center in the Middle East.

It is further hoped that the University of Nebraska and A.I.D. Mission will keep a watchful eye on the program and provide consultation, short-time assistance, and guidance whenever possible. It is felt that without this outside leadership, assistance, and continued interest, Home Economics could easily deteriorate rapidly during this critical period of uncertain leadership within the Department.

The Faculty of Agriculture will need assistance and guidance in making the right decisions for the further development of Home Economics

within Ankara University. Even though the official contract has phased out, it would appear that the investment is of such a proportion to sustain the interest and cooperation of Nebraska University and U.S.A.I.D. in every way possible until the Department of Home Economics has matured to such a stage that it can fully operate on its own.

PLANT SCIENCE DEPARTMENT

Professor John L. Weihing

FINAL REPORT
December, 1965

INTRODUCTION

Cultural Background

Ataturk University is located in one of the most fascinating parts of the world--a part of the world where a man first changed from an animalistic band to a stationary culture. It is the region of the origin of the Caucasian people. It is at the head waters of the Euphrates and Tigris Rivers which spawned the fabulous Mesopotamia culture and agriculture of thousands of years ago. It is at the head waters of the Araxes River which flows past the base of Mount Ararat a hundred miles to the east where a great valley is formed that extends to the Caspian Sea and within the valley, man has cultivated the fertile alluvial soils for perhaps as long as any place in the world. It is located in a large intermountain valley and beside the city of Erzurum from which radiate roads and tracks leading to the numerous villages which are situated mostly at the base and in the folds of the interlocking mountains. Beside most villages are usually found mounds of earth which were formed by the deposition of debris and soil of a former, initial village site. Within each a remarkable historical record is revealed by preserved artifacts and seeds. Wheat seeds found in pots have been dated as 4000-5000 years old and pottery and implements date back 7000-8000 years. This region was, indeed, one of the foremost developed in ancient times, but, as time progressed, her Caucasian peoples carried their viable culture to other parts of the world while at home they somehow lacked the proper social nourishment to continue progress but rather retrogressed in many respects. The region became known as one of the world's underdeveloped areas.

On the national side, Erzurum has been the tidal boundary of the great Eastern and Western cultures where, like tides of an ocean, each culture would wash over the area in its turn and then recede. Xerxes of Persia passed through here on his way and return from his ignominious war with Greece. Erzurum was the main easterly stronghold of the Romans and then the Byzantines and then the Seljuk Turks and then the Arabs, again the Turks; and one must not forget the great Christian empire of this region, the Armenians, whose original people had migrated from the Greek peninsula several centuries before Christ. Erzurum was, and is yet, the key to Asia Minor. Over the centuries, the nation that had that key controlled Asia Minor. Almost since its very beginning it has been a significant military region of one nation or another.

And now, once again Erzurum has become a site for another social

experiment--the attempt to establish a University of a Western character within her ancient civilization. A University to serve and modernize her peoples. To a person from the West, this may not appear to be a formidable task. But to anyone who has taken up the gauntlet and attempted to transform an Eastern culture whose roots have been established over a multiple of milleniums, one quickly realizes the Herculian nature of the task. No doubt the task will be completed successfully but not without much patience, constant pressure and help from outside social pressures of a modern world which is daily shrinking in size because of rapid communication and transportation.

University Development

The initial hope of the University of Nebraska in helping the nation of Turkey to establish Ataturk University was to pattern its philosophies and administration after those of the American Land-Grant System; i.e., to inculcate the philosophy that education should be a service to mankind.

In the beginning, which was 1958, this institution followed along the classical European University lines. As time progressed and young staff members continued to return from the United States, there developed an undercurrent of pressure for change. The contamination of the young minds with Western ideas had caused them to be greatly frustrated with the straight-jacket style of administration and authority.

Not all returning participants were changed. In fact, some were very pleased to return to the comfort of the Turkish system where advancement was not through competition, but rather procedural. But for those who were ambitious, conscientious, and energetic, the procedural system was stifling and frustrating. Their efforts and accomplishments may be several-fold of their colleagues, but their reward in rank and pay were no more. The incentive factor was lacking.

The continued introduction of participants from the U.S. gradually developed a revolutionary hard-core. In retrospect, one can say that by 1964, the battle lines were drawn. The old guard which was composed of the senior administrative officials and including those young staff members that preferred the comfort of non-competition vs the small group of young but determined, fearless Turks.

The internal division on direction resulted in such strife that for a while during the summer of 1964 there was even doubt that the University might survive. The Rector and two Deans resigned that August. The Minister of Education had to move quickly to keep the University from total collapse. Fortunately, he had the strong cooperation of Ihsan Dogramaci, who at the time was Rector of Ankara University, who is Western oriented, and who is one of the most ingenious and productive individuals in Turkey. An interim Rector, Prof. Dr. Muharrem Koksal, was appointed and subsequently the present Rector, Prof. Dr. Osman Okyar, was appointed permanently in November 1964. Two new Deans were appointed in

September.

Rector Okyar had been a Docent at Istanbul but had left the University several years ago and had joined the staff of a bank. He had had advanced training at Cambridge, England, where he received his Doctor's Degree. He was cautious at first--Which direction to go, East or West?--particularly as his two Deans were of the "Old School". In time, however, he committed himself to the West and by this fall, 1965, his Dean of Agriculture resigned. This Dean in his parting statement noted that there was a young staff trying to go a direction opposite to that which he was leading them and that he felt he should step aside and see if they could be successful. The new Dean of Agriculture, Prof. Dr. Abdusselam Ergene, was once a participant in the U.S. He obtained his professorship less than a year ago. He is not an extremist either way but probably should be classed as a moderate. It will be interesting to observe his tenure as a Dean.

In summary, it can be said that the effects of time cannot be stopped and the new is gradually placing greater and greater pressure on the old. Those forces of the new will continue to increase as participants go and come from the U.S. while those of the old remain static. Naturally, one cannot predict the point that will be attained on the chart of progress at Ataturk University at any given time but it is certainly reasonably safe to predict that there will be an evolution to the new. The development must come through the orientation of young minds. Once a person is 30, rigor mortis seems to set in on one's philosophies and it seems infinitely hard to make a change--myself included.

OBLIGATIONS OF THE PLANT SCIENCE DEPARTMENT

The Plant Science Department is obligated:

1. To develop a curriculum for a degree in Plant Science and perform teaching of courses within the department;

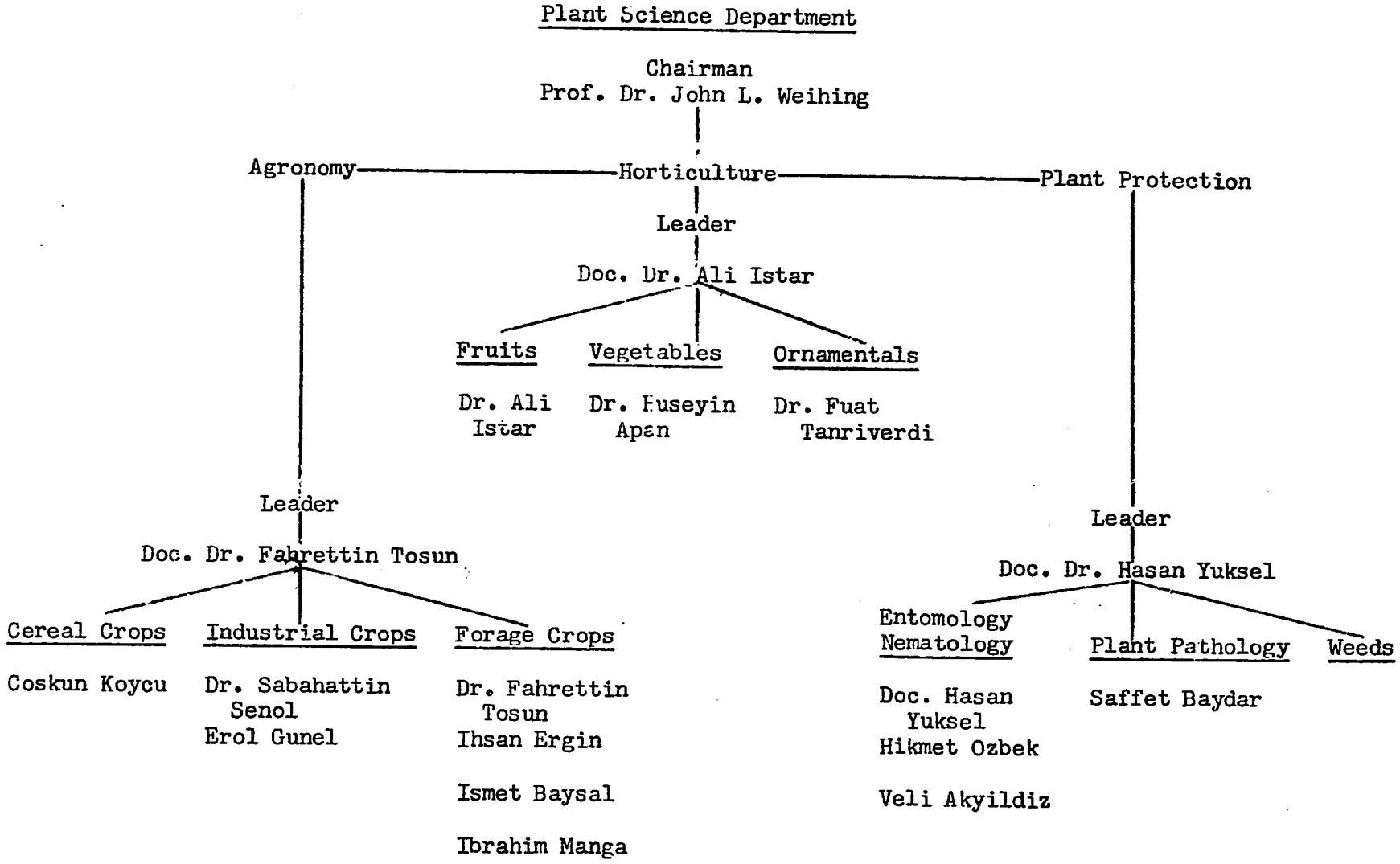
2. To develop a research program within the framework of the Research Institute and to carry out that research program;

3. To develop an extension program within the framework of the Extension Institute and to conduct that program.

THE ADMINISTRATIVE STRUCTURE OF THE DEPARTMENT

The Plant Science Department is composed of three major crop agricultural divisions: Agronomy, Horticulture, and Plant Protection. Each of these areas is comprised of three sections as shown in Table 1. The personnel of each of these sections can be considered as responsible in the area of teaching, research and extension.

Table 1. The Administrative structure and staff of the Plant Science Department



TEACHING

The Plant Science Department has been, in general, permitting between 30-40 students to register for a major in Plant Science each of the past four years (Table 2). This number would increase greatly if all prospective students were allowed to register. However, due to the limited staff, the department has had to be restrictive.

The development of a curriculum which embraces all three disciplines, Agronomy, Horticulture and Plant Protection, results in breadth of subjects but not depth in training. Table 3 is a summary of the courses offered by the Plant Science Department and the departments requiring these courses.

As Ataturk University grows, it will become increasingly difficult to continue to give only a Plant Science degree within the present structure because of the increasing number of required courses being given in the three natural subject matter areas.

Eventually, after there has been considerable staff growth, the administration may wish to decentralize the Plant Science Department into Agronomy, Horticulture and Plant Protection Departments. However, as an initial step in alleviating the present situation, the Plant Science degrees could be given within specialities and the major could be written as, for example, "Plant Science (Horticulture)" if the student had specialized in Horticulture. Such a change would permit specialization and depth in training and would relieve the student of an over-burden of courses in Plant Science. A requisite list of courses would be developed for each of the subject matter areas. The acquisition of staff members would need to be such as to create an adequate staff in each of the areas to satisfactorily handle these courses in their respective curriculum.

The most difficult problem is to meet the present and future instructor demands of the department. The situation is as shown in Table 4.

When one looks at the number of staff in the department, it appears that there is a sufficient number to handle all courses. However, according to Turkish law, one cannot teach until they are of a Docent's rank. The period of Assistant and Dr. Assistant is for graduate training. Nevertheless, because of the urgency for teachers, many of the assistants have been teaching courses.

There are a number of competent people in the Ministry of Agriculture who could teach courses during the interim until the present young staff is ready and available. It would be advisable that all potential instructors for the courses in need be determined and arrangements for their coming to teach be made well in advance.

At present, the curriculum requirements of each major in the University are extremely inflexible regarding required courses and does

Table 2. Number of students in the Plant Science Department. 1964-66.

Class	Year 1964-65	1965-66
Freshman	27	33
Sophomore	43	27
Junior	35	43
Senior	37	35
Total	142	138

Table 3. Summary of required courses and numbers of students.

Course Number	Course Name	Departmental Requirements: Plant Science	General Agriculture	Animal Science	Agricultural Economics	Soils	Agricultural Engineering	Number of Students 1964-1965	Estimate Number Students 1970
	General Courses								
Fito. 1	Plant Science I	+	+	+	+	+	+	165	250
Fito. 2	Plant Science II	+	+	+	+	+	+	176	250
	Agronomy Courses								
Fito. 106	Forage Crops	+						---	70
Fito. 103	Field Crops	+	+					117	120
Fito. 105	Industrial Crops	+	+					49	120
Fito. 101	Pastures	+	+	+				35	160
	Horticulture Courses								
B. B. 1	General Horticulture	+	+					136	120
Fito. 202	Ornamentals	+						40	70
Fito. 102	Vegetables	+						108	70
Fito. 104	Fruits	+						43	70
	Plant Protection Courses								
B.K. 203	Entomology		+					---	120
B.K. 202	Plant Pathology	+						---	120
B.K. 207	Plant Pest and Weed Control	+						136	120
	Special Courses								
Fito. 201	Plant Breeding	+						69	80
Fito. 258	Exp. Design	+						98	80

Table 4. The staff availability for teaching the Plant Science courses from 1965 to 1970.

Course Number	Course Name	Staff Member	Present Staff Availability Year 65	66	67	68	69	70
		General Courses						
Fito. 1	Plant Science I	S. Şenol	+	+	+	+	+	+
Fito. 2	Plant Science II	S. Şenol	+	+	+	+	+	+
		Agronomy Courses						
Fito. 106	Forage Crops	F. Tosun	+	+	+	+	+	+
Fito. 103	Field Crops	C. Köycu	-	US	US	Army		+
Fito. 105	Industrial Crops	E. Günel	-	US	US	Army		+
Fito. 101	Pastures	I. Baysal	Canada			+	+	+
		Horticulture Courses						
B.B. 1	General Hort.	A. Iştar	+	+	+	+	+	+
Fito. 202	Ornamentals	F. Tanriverdi	+	US	US	Army		+
Fito. 102	Vegetables	H. Apan	+	US	US	+	+	+
Fito. 104	Fruits	A. Iştar	+	+	+	+	+	+
		Plant Protection Courses						
B.K. 203	Entomology	H. Yüksel	+	+	+	+	+	+
B.K. 202	Plant Pathology	S. Baydar	-	US	US	Army		+
B.K. 207	Plant Pest and Weed Control	---------	-	-	-	-	-	-
		Special Courses						
Fito. 201	Plant Breeding	F. Tosun*	+	+	+	+	+	+
Fito. 258	Exp. Design	F. Tosun	+	+	+	+	+	+

*Dr. Tosun is capable of teaching these courses, but being Director of the Research Institute makes this difficult.

not have a prerequisite course system. It will require a change in the law of the University for flexibility in curriculum majors and a prerequisite system to be adapted. Nevertheless, these changes should be made as soon as possible.

RESEARCH

Introductory Comments and Listing of Research Projects

The present research projects of the Department are conducted within the framework of the Research Institute of Ataturk University. Within the Research Institute, the departmental projects are categorized into the three natural areas of Agronomy, Horticulture and Plant Protection. The present research projects and those which have terminated are shown in Tables 5 and 6.

The results of the research should have a two-fold effect, that of enhancing Turkish Agriculture and that of enhancing the staff member's position among his colleagues. This can only be done if the research information is summarized and published in appropriate research media and it is also made available in a form understandable for its application in Agriculture. At present, three areas of publication are being used by the staff; (1) articles in the Annual Report of the Research Institute, (2) bulletins published by the Research Institute, and (3) articles in the Extension Newsletter that goes to County Extension personnel. All of the staff have been active in the preparation of articles of all three categories.

General Discussion On Research In The Department

Agronomy

Range and Pasture

Livestock is a particularly important segment of agriculture in eastern Turkey. Therefore, pasture culture, range management, forage production and cereals for animal feeding are highly important in the overall crop production of this region.

The pastures are the focal point of livestock production. Likewise, they become a focal point in research.

The pastures of eastern Turkey have a low carrying capacity. They are commonly located on the sloping land between the cultivated farm lands of the valley and the steep mountain sides. Soil erosion is severe because the vegetation is grazed too short on these sloping lands.

In order to solve the pasture problems, a central pasture research project (2/13) has been established. The purpose of this particular project is to develop practical and economical practices that

Table 5. Research projects of the Plant Science Department that are presently in progress.

Project Number	Project Name	Researcher(s)
	Agronomy Section	
2/1	Breeding and selection of potato varieties	Sabahattin Senol
2/11	The effect of fertilizers and irrigation on wheat yields	Ibrahim Manga
2/13	Pasture grazing experiment	Fahrettin Tosun Ismet Baysal
2/15	Adaptation of forage crops	Fahrettin Tosun
2/19	Rotation experiments with wheat and legumes	Fahrettin Tosun Ismet Baysal
2/20	Winter hardiness studies in grasses and legumes	Fahrettin Tosun Ismet Baysal
2/21	Mixed species pasture experiment	Ihsan Ergin
2/22	Adaptation of various wheat and barley varieties	Coskun Koycu
2/24	A study of the morphological and yield characteristics of sunflower grown under various nutritional and soil moisture levels	Erol Gunel
2/26	Sorghum adaptation trials	John Weihing
	Horticulture Section	
4/2	Adaptation studies on various vegetables and their varieties on muck soils of Erzurum	Ali Istar
4/5	Adaptation studies on various vegetables and their varieties on mineral soils of Erzurum	Huseyin Apan
4/7	Adaptation studies on ornamental trees, shrubs and flowers under Erzurum conditions	Fuat Tanriverdi
4/8	Morphological and pomological research on grapes at Erzurum	Ali tar
	Plant Protection Section	
5/1	Survey of insects	Hasan Yuksel

Table 6. Research projects of the Plant Science Department that have terminated.

Project Number	Project Name	Researcher(s)
	Agronomy Section	
2/2	Stubble mulching in wheat culture	Sabahattin Senol
2/3	Cabbage trials	Ernest Wheeler
2/4	Spacing experiment in potatoes	Ernest Wheeler
2/5	Comparison of line-transect and the point quadrat methods	Fahrettin Tosun
2/6	The effect of clipping height and frequency upon the root growth of forage plants	Fahrettin Tosun
2/7	Yield studies on alfalfa and Sanfoin	Ernest Wheeler Ihsan Ergin
2/8	Beets for livestock feed	Ernest Wheeler Ihsan Ergin
2/9	Sugar beet spacing and sugar beet production organic (muck) soils	Erol Gunel
2/10	Establishment of pasture mixtures	Ihsan Ergin
2/12	Effect of detasselling corn on sugar content of the stalks	Fahrettin Tosun
2/14	Effect of fertilizers on hay yields in meadows	Fahrettin Tosun
2/16	Hybrid corn variety yield test	Ernest Wheeler
2/17	The effect of fertilizers on seed yield of intermediate wheat grass	Ismet Baysal
2/23	Adaptation of winter oats under Erzurum conditions	Coskun Koycu
2/25	Breeding and the selection of corn	Coskun Koycu
	Horticulture Section	
4/1	Date-of-planting of sweet corn	Ali Istar
4/3	The study and development of grapes at Elazig	Ali Istar

Table 6 (Continued)

Project Number	Project Name	Researcher(s)
4/4	Studies on the oil content of tea seed	Ali Istar
4/6	The principal problems of landscaping in town and cities	Fuat Tanriverdi
	Plant Protection	
5/3	Corn diseases in the eastern Black Sea region; identification and intensity	Saffet Baydar

can be conducted by the farmers so as to significantly improve the carrying capacity of pastures and to stop soil erosion. The first phase of this experiment was to conduct four cultural treatments on sloping pasture land typical of the region. These treatments were:

1. Control (No treatment).
2. Removal of weeds only from the pasture.
3. Removal of weeds plus overseeding with grasses and legumes.
4. Cultivate the land and plant mixtures of:
   Agropyron cristatum)
   Agropyron intermedium) with yonca or korunga
   Bromus inermis)
   Festuca ovina)

The early results of this experiment indicate that removal of weeds alone increased forage yield by 40%, removal of weeds plus overseeding with grasses and legumes increased yield by 52%, and cultivating the land and planting a grass-legume mixture increased yield by 190%.

The second phase of this experiment is being prepared at the moment. Pasture lots are being fenced-off in which various seeding and grazing procedures will be conducted:

1. Control
2. Overseeding
3. Grasses and alfalfa
4. Grasses and korunga

In order to better understand the results of this experiment, various other experiments have been, or are being conducted, in support of it. They are:

2/5 A comparison of the line-transect and the point-quadrat methods in evaluating range and pasture quality.

2/6 The effect of clipping height and frequency on root development and forage quality.

2/7 Studies on comparative yield of alfalfa and sanfoin.

2/10 Establishment of various pasture mixtures.

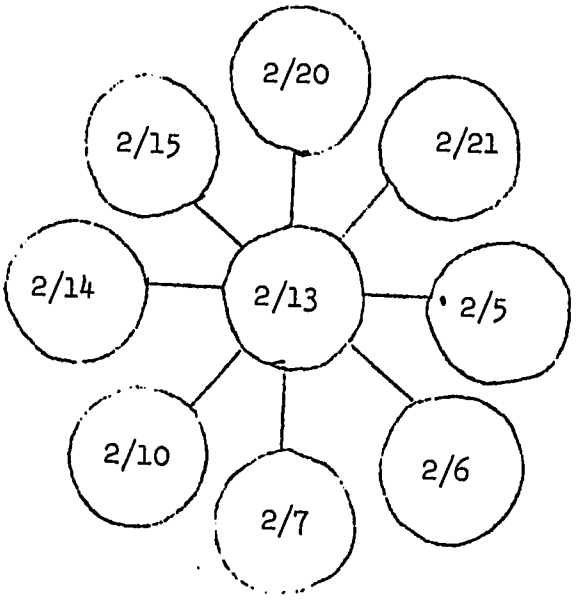
2/14 The effect of various fertilizers on hay yields in meadows.

2/15 An adaptation study of various forage grasses and legumes in the Erzurum valley.

2/17 The effect of various fertilizers on the seed yield of intermediate wheatgrass.

2/18 The increase of legume and grass seed in Erzurum valley for distribution among the villages.

The over-all forage crops program may be visualized as follows:



Cereals

The development of cereals for livestock feeding has progressed only to the preliminary stage. This needs development badly and will be as soon as staff can be acquired. Adaptation studies with hybrid corn and sorghum show that only the very shortest season types can be grown in the Erzurum valley. The real emphasis with these cereals, however, should be in the large valleys of lower elevation such as Mus, Agri, and Igdir.

Winter barleys have been brought in from the U.S. for trial at Erzurum. These will be tried at other locations in eastern Turkey. Some of these barleys should be quite well adapted as they are grown in the severe climate of Nebraska.

Winter oats of Turkey obtained from the Eskisehir station winter-killed completely at Erzurum.

The most important and extensively grown food crop for human consumption is wheat. Turkey is short of wheat.. This should not be. Wheat yields could presently be tripled through:

1. Improved cultural practices.
2. Improved soil fertility.
3. Improved varieties.

4. Pest control
   a. Weed control (30% is presently being lost because of Canada thistle).
   b. Insect control.
   c. Disease control.

It is not easy to institute the practices mentioned above until research has been conducted that will give information as to how best to apply them. At present the wheat is grown on an alternate fallow-crop system. No fertilizers are used because manure is needed for fuel and commercial fertilizer, if available, is too expensive. The result is that yields average less than 100 kg/do.

In order to begin in a practical way, a research project (2/19) was instituted to study the yield and quality of small grains in rotation with legumes (korunga and vetch), fallow, commercial fertilizers and no treatment. This experiment was begun three years ago and it is much too early to determine the effects of the treatments. It takes several years.

As for the wheat variety situation, many have been obtained from the Eskisehir station and from the Nebraska Experiment Station and are now planted on the research farm. Next year should give an indication of their comparative value but it will take several years of testing to obtain a valid evaluation. Breeding, selection, and cultural practices are all areas of tremendous need that we will fulfill as soon as trained, dedicated personnel can be obtained.

One may wonder why a breeding program has been slow to start. Production of new varieties in cereals, grasses, legumes and vegetables require many years. The first objective was to obtain improved varieties as soon as possible. This could be done by conducting adaptation tests at Erzurum of improved varieties obtained from other regions in the world with similar climatic characteristics. Those varieties which fit our characteristics could then be distributed to farmers for immediate use. These varieties could then be used in a breeding program in combination with native varieties and wild species in developing still better varieties for eastern Turkey.

Industrial Crops

A strong and vigorous potato program has been instituted at Ataturk University. It is the only program that has had any breeding work done. This is because potatoes being asexually propagated, a new variety can be selected directly from an F_1 cross.

Potato varieties and breeding stock were brought in from Europe and the United States and parts of Turkey, evaluated and numerous crosses made five years ago. Numerous clonal lines are presently to be examined for specific gravity, yield and other qualities that are desired in new varieties. Those clones which are desirable will be

increased and subsequently released as varieties to the farmers.

Certain cultural practices such as spacing and fertilization of potatoes have had some study but further investigations should be conducted.

Eastern areas of Turkey, particularly those similar to Erzurum should be excellent for the production of seed potatoes. This is because the high elevation of the valley has a cool climate and there is a low population of those insects which transmit virus diseases.

Turkey is short of vegetable oils and has to import substantial amounts to meet her needs. Sunflowers for oil have been under investigation in this area and have shown excellent promise for eastern Turkey. Presently an investigation is under way studying fertility and irrigation needs of sunflowers.

Sugar beets are a very important crop. Cooperative investigations should be carried on between the sugar beet factories and the University on cultural practices but we do not have sufficient personnel at the moment.

Horticulture

Fruit

Most of the experimental work throughout the horticultural section has been adaptation studies of numerous species. As for fruits, even the hardiest species have proven incapable of withstanding satisfactorily the harsh winter climate of Erzurum. It is more wise to concentrate our efforts on fruit production in those regions which have suitable climate. This will be our object in the future.

There are several discrete regions which are extremely well adapted to particular fruit production such as apples in the Azort area and apricots at Kagizman. Areas that may have a large production potential would be the Mus, Erzincan, and Igdir valleys and perhaps other areas. These areas will be the main research regions in the future.

The grape varieties which are grown in the Erzincan Valley have been checked for their pomological characteristics. Besides table grapes, two of the varieties have excellent wine producing characteristics.

Vegetables

Parallel experiments are being conducted at Erzurum and the Agricultural School at Erzincan on vegetables. The people of the Erzincan region asked what kind of vegetables could be used for canning purposes. In order to answer their demand, numerous pea, bean, carrot, cucumber and tomato varieties brought in from the U.S. and regions of Turkey have been tested for adaptation. After two years of testing, it

has been found which of the varieties are acceptable and we have started to give seeds of these varieties to the people for canning purposes and fresh use.

Besides the vegetables, a U.S. watermelon variety (Fordhook) which has few seeds and superior quality has been found to be particularly well adapted and has high sale demand.

At Erzurum, detailed studies have been made on the morphological, adaptation and yield characteristics of cucumber, carrot, radish, cabbage and turnip varieties. Our adaptation studies have now reached a point where culture and breeding programs may be instituted.

Ornamentals

A strong, basic program has been in progress in landscaping and ornamentals. A thorough survey has been made in eastern Turkey of the native species for ornamental purposes. Many have been brought to the research station for trial. Numerous species have been brought in from other areas of Turkey and the U.S. In the past two years we have observed that out of 30 tree and brush species tested, five were killed, six froze back to the ground but the roots survived--thus, 19 were adapted.

As for flowers, in the past three years, 12 Turkish and 20 U.S. species have been tested. Good results were obtained from all but we could not get seed from the late types.

Paralleling the species adaptation studies, landscaping problems and principles have been studied regarding urban and rural areas of eastern Turkey. The following needs have been determined.

1. To clear the areas around important historical sites and establish parks about them.

2. To establish sports, rest and amusement areas for social life.

3. To establish a landscape belt at the edge of the city to prevent squatters from moving in.

4. Places such as Tortun Lake need to have their recreational facilities improved so that they will be more desirable for holiday visitation.

5. The roads and cemeteries of rural areas should have tree plantings.

Plant Protection

Entomology

The most active research in this section has been on the survey and classification of the parasitic nematodes in eastern Turkey.

There has been very little done in the area of insects other than collection. However, this area should begin to develop rapidly because we have acquired two new assistants for entomology.

Plant Pathology

There has been little done in the area of plant diseases other than survey of corn diseases in the Black Sea region. A short-term project on tobacco blue mold has resulted in the development of a laboratory technique to culture the blue mold fungus and the screening of common tobacco varieties for resistance. We presently have a resistant selection that appears to be promising. This is most significant because one-third of the export income is from tobacco and blue mold disease causes considerable losses each year.

Weeds

A very serious production problem in both pasture and field crops is weeds. There are several weeds in eastern Turkey: Canada thistle (Cirsium arvense), other kinds of thistles, and Glycyrrhiza species, which actually saturate some fields, reducing production to essentially nothing. Weed research and an effective weed extension program is very badly needed. We have a senior student who is interested in this area, but of course it will be several years before he can become productive.

Summary of Research

Considering the number of personnel, their youth and the breadth of the overall research program, as a whole the department is very productive. There are certain areas where research excels, such as in pasture and forages, nematology, potatoes, vegetables and ornamentals. I say excel because the young men who started these studies were beginning at point "zero", in a region foreign to them, and in an institution having many administrative imperfections. One cannot give too much credit to Dr. Fahrettin Tosun who forged together the Research Institute in spite of this low academic rank which was a Herculean detriment. Yet he made it possible for organized research to be conducted. One can but admire Drs. Tanriverdi and Apan who have conducted their work with complete devotion. Doc. Dr. Hasan Yuksel, through much improvisation and make-shift, has been making significant advances in nematology. All in all, it can be said that a good start has been made in certain areas.

The seriously weak areas are cereal crops, weed control, and extension. These areas need personnel for research very badly.

EXTENSION

There was no Extension Institute established at Ataturk University until the spring of 1965. This was finally done under the direction of Prof. Ted Doane. None of the Plant Science staff are members of the Extension Institute per se. Yet, all of them should be considered to be responsible to the Extension Institute for providing information in their subject matter area and to participate in functions and activities created by the Institute. The department does have one person designated as an extension contact person, Doc. Ali Istar. However, this arrangement has not proven very satisfactory because the staff does not really feel they are obligated to extension.

The most revolutionary of all programs trying to be effected at Ataturk University is extension. Historically, the Turkish University staff member existed in a vacuum from the Turkish society. They did not feel responsible to supply the society with technical knowledge and skills. Rather, they had the classical purist philosphy of having knowledge for knowledge's sake.

Limited extension activities were promulgated by Prof. Doane before he finally got the Extension Institute established. He had made close contact with the Turkish Federal Extension Service and was sending technical information to Extension Directors and specialists. He had created several village information meetings and tours of the agricultural research in progress at Ataturk University.

Following the establishment of the Extension Institute, Prof. Doane was able to institute a regular distinctive newsletter which is sent to Extension personnel and other agricultural people of a technical nature throughout eastern Turkey. In November, 1965 he had all of the extension directors of eastern Turkey come to the University of Ataturk for a three day discussion with the Agricultural Faculty on agricultural problems in eastern Anatolia.

Each of these steps have been excellent in the development of extension. It was necessary that the various echelons of agricultural people begin to look to Ataturk University for help before the staff would begin to take interest. The staff had no concept of how to make information useful to a society. They were within a shell and that shell had to be broken with some outside help. Now, the eyes of various agricultural segments are beginning to focus upon the University. More and more attention and contact will be made with the outer public until eventually there will become established strong informational channels between public and University.

The Plant Science Department has assisted the Extension Institute through writing popular articles for each of the monthly issues of the

Extension News Letter and by participating in village meetings, research tours and conferences. However, a strong extension program cannot be instituted until regular staff members are appointed whose primary duties are extension. In order for extension to be effective, it is necessary to have an inclusive, integrated program under the direction of a person whose principle duty in the department is to see that it is carried out.

The attention given extension up to now has been mostly passive. Actually, it is one area that should receive major attention equal to research and teaching from now on. The greatness of the University can be no greater than the greatness of her people; therefore, it is imperative that the knowledge and skills within the walls of Ataturk University be extended to her supporting peoples.

ACADEMIC ADVANCEMENT OF THE STAFF

The following table summarizes the advancements of the staff in rank and English proficiency during 1964 and 1965.

Staff Member	Rank 1964	Rank 1965	Spoke English 1964	Spoke English 1965
	Agronomy Section			
Fahrettin Tosun	Dr. Assist.	Docent	+	+
Ihsan Ergin	Assist.	Assist.	-	+
Erol Gunel	Assist.	Assist.	-	+
Coskun Koycu	Assist.	Assist.	-	+
Ibrahim Manga*	Assist.	Assist.		+
	Horticulture Section			
Ali Istar	Dr. Assist.	Docent	+	+
Fuat Tanriverdi	Assist.	Dr. Assist.	-	+
Huseyin Apan	Assist.	Dr. Assist.	-	+
	Plant Protection Section			
Hasan Yuksel	Docent	Docent	+	+
Saffet Baydar	Assist.	Assist.	-	+
Hikmet Ozbek*		Assist.		+
Veli Akyildiz*		Assist.		+

*These persons were added to the staff in 1965.

Two of the staff were at Nebraska University in 1964, Dr. Assistant Sebahattin Senol and Assistant Ismet Baysal. Dr. Senol returned in September, 1965 after having had two good years at the University of Nebraska. Ismet Baysal successfully completed his Master's degree in

Agronomy at the University of Nebraska in June, 1965 and then proceeded to the University of Alberta at Edmonton, Canada, where he will do his Doctorate in alfalfa genetics.

When I first arrived in 1964, it was not possible to hold classes or a seminar with the young assistants because they could not speak English. However, in the fall of 1965 after intensive English courses, I started regular classes in physiology, microbiology, and biometry with the assistants and also instituted a daily seminar. The classes and seminars were highly successful. If this could have been done for two years in succession, tremendous progress could have been made in the development of the young staff. Actually, until these courses and seminars were instituted, there was no real academic atmosphere in the department, now there is.

The young assistants should be sent to the U.S. at the earliest possible feasible time following their proper language proficiency. A delay causes stagnation of the individual and a retardation in the development of Ataturk University. There was a period during 1962-1964 when few Plant Science assistants were sent to the U.S. The result has created great stress in the areas of teaching and research. Table 7 summarizes the results of the participant training program.

AN OUTLINE OF PROBLEMS

The following outline of problems was prepared in consultation with all of the Plant Science Departmental staff. It is a reflection of the department's problems as they view them.

I. General Problems

A. There needs to be developed a standard method for determining the budgetary requirements of the department. This should be started at least one year in advance of the government's budget request.

B. Requests for detailed developmental plans should be made well in advance of their deadline for submission.

II. Important Problems in the Past and Present

A. Teaching

1. Inadequate number of qualified staff (by law) to teach the required courses.

2. Assistants are required to teach at the expense of their own training.

3. The assistants are sent to language school (1 year) and then to the United States (2 years). Thus, for three years they

Table 7. The progress of the participant training program in the Plant Science Department.

Section	Present Number Staff	No. that have been in U.S.	No. in Language Training**	No. ready to go to U.S. in 1965
Agronomy				
Cereal crops	1	0	1	1
Industrial Crops	2	1	1	1
Forage Crops	4	2*	2	2
Horticulture				
Fruit	1	1	0	0
Vegetable	1	0	1	1
Ornamentals	1	0	1	1
Plant Protection				
Entomology	3	1	2	0
Plant Pathology	1	0	1	1
Weeds	0	0	0	0
Total	14	5	9	7

*One of these persons went to Canada to study for a Ph.D. following his two years in the U.S.

**Only four of the assistants attended the language training course in Ankara, the rest learned English through the assistance of Peace Corps volunteers and classes conducted by Mrs. Weihing. There are none at the language school in Ankara at present. By giving them language training at Erzurum, there are several advantages. They are available for departmental duties and also they can be learning the technical terminology and be studying several subjects while learning English.

are occupying a position but they are not available to assist in laboratories or other departmental functions.

4. Lack of written materials (books, manuals, etc.) for the students.

5. There is a lack of coordination of subject matter when we continue to bring in outside instructors.

6. The quality of teaching is below normal because of the following factors:

   a. The instructor may have too many duties. Our junior staff, besides having to do their regular work for advanced studies must also take on duties which would be done by senior staff members which we lack.

   b. The administrative system disrupts a smooth teaching program. A tremendous number of man hours is wasted in councils and committees that have far too many persons for efficient and decisive action.

   c. The system results in an excessive number of hours and amounts of energy being taken from classroom preparation and teaching.

   d. Some courses have insufficient credit hours and should have laboratories in order to be efficient.

B. Research

1. In general, facilities have been adequate. At least, they have not been a limiting factor to research.

2. There is yet not sufficient staff to do the needed research for Eastern Anatolia.

3. Lack of time to summarize results. This has reference to routine technical work. For example, routine statistical analysis.

4. No general analysis of the most important research needs of Eastern Anatolia. Ex: The research of the department should be directed to the needs of the region. This is true for both the regular research projects and the assistant's Doctors studies.

C. Extension

Leadership has only just begun in this area. Extension is yet to be developed.

D. Assistants Training

1. No real program of training. The training should be well programmed so the assistant will know what is required of him and what are his objectives.

2. There is the common opinion that the language program is handled in a secret way. This should be programmed and in the open so that a person can plan accordingly.

3. The breadth and depth of training of the assistants should be increased through having advanced courses taught by those qualified persons presently on the staff.

E. Laboratories

1. Laboratories are extremely important for certain courses, particularly in the biological and physical sciences.

2. At present, an instructor would have to teach both lecture and laboratory without assistance.

3. Large classes must be divided into a number of laboratory sections having a minimum of two hours each. This greatly increases the classroom hours and preparation time of this instructor.

4. With particular reference to Fito-Tekni Department, because of the climate we cannot do field study during the academic year. This means that study materials should be grown in the greenhouse for laboratory study.

F. Relationship of the Department with other Departments, Research Institute and the Dean s Office.

1. No major problems with other departments.

2. No major problems with the Research Institute.

3. There is a general opinion that the suggestions from the Dean's office are expected to be taken as commands, rather than suggestions.

4. Major decisions are requested without having sufficient time to study and analyze the problem.

G. University Purchasing.

The present University purchasing system is inadequate. There is no departmental fund with which the department can systematically plan the purchase of laboratory equipment. At present, the staff cannot make definite laboratory or classroom

plans because of the uncertainty of having equipment and material available.

H. Greenhouse

The greenhouses will soon be ready for use. Plans must be made and instituted for having adequate personnel to conduct greenhouse operations, equipment requirements and soil.

Minimum Staff Requirements

The Plant Science Department should be developed to meet the needs of teaching, research and extension of eastern Turkey. In Table 8 is a summary of full time staff requirements to meet the very minimal needs of the department. At present, there are 14 staff members in the department. This number is deceiving because many of these are assistants who do not teach. In essence, they are students who are doing advanced training. Some of them will be going to the U.S. and/or the army and will be lost to the University for a period of time. A very minimal number of full time personnel would be 21. Thus, it is obvious that the department is functioning well below the minimal needs.

Table 8. Minimal staff requirements to meet the research, teaching and extension requirements of the Plant Science Department.

Section	Percentage of staff member's time devoted to: Teaching	Research	Extension
Agronomy			
Cereals			
Small grains	1/3	2/3	1/3
Corn and sorghum	1/3	1/3	1/3
Industrial			
Oil crops	1/3	1/3	1/3
Potato and sugar beets	1/2	1/2	
Forage			
Range management	1/3	2/3	
Grasses	1/3	2/3	
Legumes	1/3	2/3	
Extension			1
Crop ecology	1/3	2/3	
Horticulture			
Fruit			
Tree fruit	1/3	1/3	1/3
Bush, bramble, nuts	1/3	1/3	1/3
Vegetables			
Crucifers, umbelliferae	1/3	2/3	
Cucurbits, beans, etc.		2/3	1/3
Ornamentals	1/3	1/3	1/3
Plant Protection			
Entomology			
Economics	1/3	1/3	1/3
Taxonomy, ecology	1/3	2/3	
Nematology	1/3	2/3	
Plant Pathology			
Economic		1/2	1/2
Pathogenisis and ecology	1/2	1/2	
Weeds			
Taxonomy, ecology, cultural and biological control	1/3	1/3	1/3
Chemical control		1/2	1/2
Total	6	10-1/3	4-2/3 = 21

DEPARTMENT OF SOIL SCIENCE

Professor Wybe Kroontje

TERMINAL REPORT[1]
October 15, 1963 - October 15, 1965

"IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE."

Albert Einstein

SUMMARY

Some aspects of the overall development of Turkish higher education, Ataturk University, Faculty of Agriculture and Department of Soil Science, during the period of October 15, 1963 - October 15, 1965, are described and the work completed summarized.

The present changes in Turkish higher education are found to be rather encouraging. The presence of outstanding leadership in this vital area will assure its success. However, there is a need for a new law giving the Universities freedom to experiment and to adopt new ideas and concepts in higher education.

After the 1963-1964 year of readjustment at Ataturk University, plans for further development are again being formulated. There is a great need for a new law. The present law is inadequate in view of the job to be done; in fact, it hampers progress and development of Ataturk University, the Faculties and Departments.

The role of the American staff should be re-evaluated in view of the development of senior Turkish staff and the possible establishment of a graduate program. The initiation of such a program would form a sound basis for a possible extension of the cooperative program between Ataturk University and the University of Nebraska since it would increase the depth of the present program and also broaden the scope of higher education in Turkey. However, before an extension of the program is formulated, the question, if Ataturk University is to become a Land-grant or European Continental type University, should be settled.

The participant program should be flexible so that the maximum benefit can be derived from it. The following suggestions are offered for consideration:

(1) The participant should not only be trained in the area of

[1]The thoughts expressed are the personal views of the author and do not necessarily reflect the views of other persons, institutions or agencies.

his specialty in America, but also be instructed in the academic and administrative operation of a land-grant type university.

(2) All participants should receive instruction in English at Ataturk University, rather than somewhere else, so that Ataturk University still can retain their services during this period of training.

(3) The research program selected for the participant in America should be of value to the immediate development of his country.

(4) The participant should not become a degree candidate while abroad, but should receive instruction in his subject matter area and associated research methods; and that research to meet degree requirements be done in his own country.

(5) Part of the support furnished to the participant should be given for assisting with the teaching of undergraduate courses.

It is suggested that agencies, foreign and/or domestic, having similar objectives in certain fields of endeavor, work together so that the developing nation receive the maximum benefit from the resources made available.

During the past two years the following accomplishments were made in cooperation with the staff of the Department of Soil Science and Ataturk University, colleagues at other universities, and officials of collaborating agencies:

(1) A National Soil Science Society of Turkey was established in Ankara on June 15, 1964. This society held its first national meeting in Ankara on May 27 and 28, 1965.

(2) Assistance was given to TOPRAKSU which led to the establishment of a Regional Soil Testing Laboratory in Erzurum.

(3) A Protocol of Cooperative Work was formulated between TOPRAKSU and Ataturk University. Assistance in the form of teachers, and support for the printing of translated materials was obtained.

(4) Liaison was established between the Peace Corps and the Administration of Ataturk University. Four English teachers are assigned by the Peace Corps to Ataturk University.

(5) A faculty report analyzing the problems at Ataturk University was prepared for a committee of the Minister of Education. Solutions to existing problems were offered. Some of the recommendations made have been implemented.

(6) Leadership was given to the 1965 Commencement Committee. Recommendations from this committee are under consideration by the

administration.

(7) Together with the Agricultural Engineers, a new Department of Cultural Technique was established.

(8) Participated in the preparation of reports in the following areas:

student regulations, graduate studies, farm regulations, and extension service.

In the Department of Soil Science the following projects were completed:

(1) Staff development: One staff member became a professor; one is about to become a docent; one obtained his doctor's degree; one passed his English qualifying examination; one is receiving further training with a Dutch survey group in Konya; two staff members were sent to America for advanced training.

(2) Improvement of instruction through the translation into Turkish of three books on Soil Science. These books are now being used in the teaching of all the undergraduate courses in soils.

(3) Strengthening of present research activities and the initiation of a project dealing with the development of a soil testing laboratory for research, teaching and extension activities.

(4) A beginning was made in the area of Extension through fertilizer demonstrations and cooperation with FAO.

(5) A program was initiated in the area of student activities. In cooperation with the Department of Cultural Technique, lectures were given to graduating seniors in regard to future employment. A student trip to Israel in 1966 was organized. A Soil Science Club is in the process of being established.

(6) Formulation of a ten-year development program. The plan visualizes the yearly admittance of 100 freshmen (presently 45) in Soil Science between 1970-1975; the establishment of a M.S. program between 1965-1970; a Ph.D. program in Soil Science between 1970-1975; and the establishment of an extension program as soon as kadro is made available.

(7) Published or submitted for publication ten manuscripts in the field of Higher Education and Soil Science.

The future of the Department of Soil Science is promising. The staff is well-trained and no doubt the Department will continue to grow under Turkish academic and administrative leadership. Prof. Kroontje completed his two-year tour of service on October 15, 1965, and returned to America.

INTRODUCTION

Today we are witnessing the possible realization of early desires to build a new type university in eastern Anatolia dedicated to the service of the people. Although still in the groping years of early establishment, its development is an expression of new ideas which are being introduced in Turkish higher education. Other new Turkish institutions like Hacettepe Medical Center and Middle East Technical University in Ankara have already successfully overcome difficulties encountered in their period of establishment and are now rapidly expanding. In fact, the latter two are not only attracting the attention of the Turkish academic community, but also that of the European academicians. These new developments in Turkish higher education cannot be stopped. It appears that at present consideration is being given to formulate a new law governing all institutions of higher learning. If such a law would give the Universities freedom to experiment in order to find the most effective and efficient ways to serve the nation through research, teaching and extension, new developments in all institutions can be expected to occur. Competition between Universities would assure the introduction of new concepts and ideas into higher education.

In this report some aspects of Ataturk University, the Faculty of Agriculture and Department of Soil Science are discussed.

ATATURK UNIVERSITY

During the past two years many changes have taken place at Ataturk University. The very fact that there were three rectors, three deans of Agriculture, and two deans of Letters and Science is indicative of the problems to be overcome. In fact, 1964 was a year of readjustment. Although many of the problems are still with us, there are hopeful indications that they will be mastered in the near future. The combined efforts of the present Rector, some members of the staff of Ataturk University, and other leading Turkish educators to work toward the passage of a newly formulated law for Ataturk University is an encouraging recent development. This law will give the University freedom to experiment, to move toward its stated objectives and to adjust itself rapidly to changing situations.

The presence of outstanding young Turkish faculty members, who will soon assume major positions of leadership is another assurance for encouraging future development. Since at Ataturk University Turkish and American academicians are working together toward a mutually agreed-upon objective, it can be easily visualized that the role of the American staff member will also be affected. In the next paragraphs a few thoughts are expressed on:

Role of the American Professor at Ataturk University:

As a result of the continuous development of Turkish staff, the

role of the American professor at Ataturk University should be re-examined. In the early phase of the establishment of the University, the question was debated if he should serve as an advisor or as a professor. At that time the decision was made that due to the absence of senior Turkish staff, he serve as a professor and chairman of a department with the understanding that as soon as Turkish senior staff became available he would resign from the chairmanship and the position would be gradually phased out. This phase has already been reached in the Department of Animal Husbandry and Soil Science. It is believed that this policy decision enhanced the growth of the University and has in general been carried out to the satisfaction of all concerned.

A second question that was subject to much discussion and controversy dealt with the classroom teaching to be done by the American professors. Some felt that their primary responsibility wqs to teach teachers rather than students. Others took a broader view and had no objection to assist in the teaching program of their respective departments, provided Turkish counterparts were available. At no time should American professors be teaching courses which can be taught by Turkish staff, unless there are very special situations. The main challenge placed before the administration of Ataturk University is to use the American staff member to the maximum benefit for the development of Ataturk University.

It is suggested that before recruitment of American staff for this new and challenging aspect of the cooperative program takes place, the proper regulations be formulated and adopted by the faculties and administration of Ataturk University and the suggested administrative and organizational structure be approved. In this way the new staff can be utilized immediately upon arrival. Each department should submit, well in advance, a proposal setting forth its participation in this program, and indicate the need for American assistance.

The establishment of a graduate training program will greatly contribute to the broadening of the scope of higher education in Turkey. It can be visualized that, in time, this program will gradually replace the need for a participant program. However, since the latter will be here for some years to come, it also should be continuously re-examined and re-evaluated in view of the benefits derived from it by Ataturk University.

Participant Program:

The success of establishing universities based upon the land-grant philosophy in foreign countries depends to a large extent upon the attitude of the returning participant. He is the backbone of the project and should be convinced that such an institution will serve his country better than the existing ones. It is, therefore, not sufficient that he receive only advanced technical training in the United States of America, he should also become thoroughly familiar with the land-grant philosophy. The present program can be greatly strengthened. Too much is left to "observation". It is suggested that:

(1) A course in "Development of Higher Education in America and Abroad" be established and made a part of the participants' program.

The question of whether the participant should be allowed to study for a M.S. and/or Ph.D. degree in America is constantly being debated. The length of the study abroad is frequently determined by the deficiencies the student has when entering into an American university. It is believed that many of these deficiencies can be eliminated before he goes abroad to the mutual benefit of all parties involved. At Ataturk University it is customary to send the participants to Ankara for language training for a three- to twelve-months' period. During this time, his services to the University are lost; furthermore, it is very costly. It is suggested that:

(2) All candidates from Ataturk University scheduled for study in America under the participant program study English and pass their English qualifying examination at Ataturk University proper, and eliminate deficiencies in other areas as well.

Due to the advanced stage of research in Agriculture in the United States of America, the participant frequently becomes engaged in research activities which are highly theoretical in nature and of little value to him upon his return. He does not have the equipment, chemicals and professional association, and he feels like a "duck out of water" in his own country and has to make great adjustments. As a result, valuable time is lost. It is suggested that:

(3) In America, programs be selected for the participant which will be of immediate value to the development of his country.

(4) The participant not become a degree candidate, but that while abroad he only receive advanced training in his subject matter area and associated research methods, and that upon his return he do his dissertation on a problem, the solution of which is of importance to the development of his country.

The allowances given to the participant are in general considered to be satisfactory, and he can devote all of his time to his studies and research. This is in one aspect very advantageous, however, in other aspects it is not, since he does not get familiar with teaching methods and laboratory procedures used in under-graduate courses. For this reason, it is suggested that:

(5) Part of the support furnished under the participant program be given for assisting with the teaching of undergraduate courses at American institutions.

It is realized that some of the suggestions made are controversial in nature and unpopular. However, it is believed that they should receive careful consideration. After all, the overall objective is to see to it that the participant will receive the best possible

training which will be of the greatest benefit to his country. The participant program therefore should always be executed with a high degree of flexibility.

Cooperation between International and Domestic Agencies:

Several agencies are providing assistance to Ataturk University to increase its rate of development so that it can fulfill its mission to the people of eastern Anatolia in a much shorter time than would be the case otherwise. The assistance received from the University of Nebraska is well known and need not be elaborated on.

For the 1965-1966 academic year, Ataturk University will receive support from the Peace Corps in the form of four English teachers. This will enable the University to strengthen and develop its English teaching program. It will therefore be possible to train participants in the English language at Ataturk University rather than in Ankara. Looking at this interesting development in a broad perspective it can be visualized that, in the future, teachers in English at Lycees in eastern Anatolia can receive further instruction or take refresher courses in English at Ataturk University.

The Departments of Soil Science and Cultural Technique have greatly benefited from a cooperative effort with TOPRAKSU in the development of their teaching program as well as in the publication of translated books which are of benefit to all concerned.

The establishment of joint endeavors with other agencies should be further developed. In order to strengthen the research and extension programs of Ataturk University, it is suggested that the Ministry of Agriculture station some of its research and extension personnel at Ataturk University in order to further utilize present facilities. Such a cooperation would be of great benefit to the participating agencies and stimulate the development of eastern Anatolia.

In order to increase crop yields and the level of living of the farm population, many nations and agencies are willing to supply funds for the buying of fertilizer and the introduction of a large national program in soil fertility. Ataturk University, and especially the Departments of Soil and Plant Science, are in a unique position to provide leadership in the establishment of such a program in eastern Anatolia. A beginning has been made with FAO; however, it is hoped that this cooperation will be expanded in the future since it offers tremendous possibilities.

FACULTY OF AGRICULTURE

Developments in the Faculty of Agriculture have been slow, irrespective of a tremendous effort on the part of the staff as indicated by the many regulations and reports prepared, such as Student Regulations, Farm Regulations, Graduate Studies, Experiment Station

Regulations, and the countless hours spent in committee meetings. Unfortunately, little progress was made and an impasse was reached. The Professors' Council and General Committee have become administrative bodies dealing in general only with "household duties", and give little academic and administrative leadership. Major problems have remained unsolved. These phenomena affected the spirit of the Faculty and meetings had to be dropped due to the absence of a quorum.

One ray of encouragement was the passing of regulations embodying the establishment of an Extension Institute. These regulations are now awaiting the approval of the Executive Committee of Ataturk University.

In a broad perspective this general dilemma is based upon the different interpretations given to the present law governing Ataturk University. Some want to follow the spirit of the law and feel that irrespective of the many limitations placed upon them by the Law, something can be done to develop the Faculties and Ataturk University along new concepts of higher education. However, others want to adhere strictly to the Letter of the Law and feel that little can be done, if anything.

It appears that the problems described above were also encountered at Middle East Technical University in Ankara before it had its own law securing its development in the desired direction. Writes Dodd[2]; "In a state like Turkey, with a highly developed system of administrative law, it can be dangerous for University officers to make decisions when they do not have legal authority to do so. Deans and Department Heads were, of course, aware of this".

A new law would do much to eliminate many of the problems encountered and also give some of the young staff an opportunity to assume positions of leadership. The present stagnation cannot continue to prevail. It is not only very costly in terms of utilization of funds and manpower, but also not conducive to the overall progress of Ataturk University and eastern Anatolia.

DEPARTMENT OF SOIL SCIENCE

Developments in the Department of Soil Science are closely related to the overall advances in the Faculty of Agriculture and Ataturk University. During the 1963-1964 academic year, the year of readjustment, much time was spent in consultation with the staff in the Department and Faculties in regard to the many difficulties existing within the University. The teaching program was carried on during this

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[2]Dodd, C. H. 1962. The Middle East Technical University. Studies in University Government and Administration. Faculty of Administrative Sciences, Middle East Technical University, Ankara. Publication #1, pp 63-74.

time, however, the research program came almost to a complete halt since no funds were available for the buying of supplies. Supplies were bought by some of the staff with their own funds in order to keep projects going. Since the development within the University had come to a complete standstill, long-range programs of benefit to the Department of Soil Science, and Ataturk University were initiated with Soil Scientists of other Universities, Officials of the Ministry of Village Affairs (TOPRAKSU), Agency for International Development, Peace Corps, Regional Directorate of TOPRAKSU (Erzurum), and the Food and Agricultural Organization of the United Nations. Assistance was also given to the Agricultural Extension Service of Erzurum and Kars. All of these activities had a built-in multiplier effect. The execution of some of them required much travel, the cost of which was borne by the University of Nebraska with approval of A.I.D./Ankara.

During the 1964-1965 academic year, the University gradually overcame the difficulties of the previous year under the leadership of Rector Prof. Dr. Muharim Koksal, and Rector Prof. Dr. Osman Okyar. Programs designed to move the University toward its objectives are again being formulated. The staff of the Department of Soil Science continued to work on the projects initiated during the 1963-1964 academic year. Furthermore, they participated in many activities in teaching, research and extension.

In regard to student enrollment, the Department has more applicants than it can accept. It presently is the largest major in the University with approximately 180 majors. This figure would have been higher; however, the General Committee placed limitations upon the Department in regard to the number of students it could accept in order to provide a better "balance" with other departments. During the past two academic years, the student load per staff member was rather heavy, which became a serious problem in the giving of laboratory instruction. However, with the anticipated return of three staff members from studies in America during the early part of 1966, this problem will be eliminated and parallel classes will again be introduced. In order to cover more material in the classroom and to improve laboratory instruction, the staff translated into Turkish three textbooks and one soils laboratory manual. These translations will be available to students at the beginning of the 1965-1966 academic year. According to the Departmental Development Plan, 100 students will be admitted to the Department each year beginning in 1975. This figure does not include students from other majors who are taking courses in Soil Science.

Presently, nine research projects are conducted by the staff of the Department. Some of them have been completed and are being written up for publication. In general, the research effort needs to be strengthened in order to make an effective contribution to Eastern Anatolia. There is a great need to define the responsibility of each staff member in regard to research as well as teaching responsibilities. The introduction of job descriptions is suggested. For field research, outstanding facilities are available, however, laboratories need to be further developed. The absence of distilled water and gas is a distinct

handicap for soil analyses. Furthermore, the procurement of supplies continues to be a main problem. The present system is unwieldy and too time-consuming. It is believed that it will become ultimately necessary to establish departmental budgets.

Extension is still in the initial stages of development in the Department of Soil Science as well as in the Faculty of Agriculture. The establishment of an Agricultural Extension Service at Ataturk University will stimulate extension activities within the departments. Kadro positions for two full-time and one half-time extension specialists have been requested.

Presently, there is considerable interest in the establishment of an advanced course of study beyond the B.S. degree. If the contract between Ataturk University and the University of Nebraska is being continued, and a Graduate Program initiated, it is suggested that an American professor be appointed for a two-year period after the University has approved regulations governing the academic and administrative structure of such a program. His duties would be to work with the staff to set up a course of study leading to M.S. and Ph.D. degrees in Soil Science, to assist in the further development of a research program and of a soil testing laboratory for research, teaching and extension purposes. The Department of Soil Science should be in an excellent position to fully participate in this new program; its staff is well trained and will have returned by that time from their studies abroad. In fact, between 1968-1970 it should be able to furnish a Master of Science degree in Soil Science. It may be mentioned that in June, 1964, ten candidates from other organizations requested to study for advanced degrees in Soil Science. Unfortunately, approval could not be obtained since at that time provisions for such studies were not in existence.

In regard to the immediate future, all academic and administrative duties will be taken over by Prof. Dr. Abdüssalem Ergene upon the departure of Prof. Kroontje. The staff is well trained and active in Departmental, Faculty and University affairs. It is believed that under vigorous leadership the Department of Soil Science will continue to play its role in the development of Soil Science in Eastern Anatolia and Turkey as well as in the overall development of the Faculty of Agriculture and Ataturk University.

Since most of the accomplishment during the past two years have been described in detail in the quarterly reports, which are published in the Semi-Annual Report of the University of Nebraska/Ataturk University Program in Turkey, only brief summaries are given.

The author is indebted to the staff of the Department of Soil Science, and colleagues and friends in other Universities, Ministries and Agencies for the support, advice and encouragement received in regard to the work undertaken and completed.

ACCOMPLISHMENTS FOR THE PERIOD FROM OCTOBER, 1963 - OCTOBER, 1965

I. At the National Level

The Soil Science Society of Turkey was established in Ankara on June 15, 1964. The founding committee was composed of Prof. Dr. Kerim Çağlar, Prof. Dr. Asaf Irmak, Prof. Dr. Hifsi Güner Meşut Osuygur, and Prof. Dr. Wybe Kroontje.

The first national meeting of this Society took place in Ankara on May 28 and 29, 1965. At this meeting an invitational paper entitled "On Higher Education, Agriculture, and Soil Science in Turkey" was presented by the author.

II. At the Regional Level

A Regional Soil Testing Laboratory was established at the regional headquarters of TOPRAKSU at Erzurum. Due to the assistance given by the Department of Soil Science, especially through the work of Miss Inayet Berkman, this laboratory became operational in the spring of 1964. Miss Berkman is continuing to give her assistance to the further development of this laboratory.

III. At Ataturk University

(1) A Protocol of Cooperative Work was negotiated between TOPRAKSU and Ataturk University. The author was charged by the administration to represent Ataturk University in these negotiations. As a result of this agreement, two teachers were furnished to the Department of Soil Science and two teaching assistants to the Agricultural Engineers during the 1964-1965 academic year. Four teachers will be furnished to the Department of Cultural Technique in the 1965-1966 academic year. TOPRAKSU also assisted in covering the printing cost of FAO development paper #78, translated by Miss Berkman into Turkish. Negotiations are being conducted to get support for the printing of the Turkish translation of Soil Testing in India, when completed. Plans are also being drawn up to further develop the University Farm according to ideas embodied in this Protocol.

(2) The author served as liaison officer between the Peace Corps and the Administration of Ataturk University. A broad program for possible assistance was formulated. As a beginning, the Peace Corps will furnish four English teachers for the 1965-1966 academic year.

(3) The author was elected chairman of the Ataturk Faculty Committee which was charged with the responsibility to analyze problems of Ataturk University during the early summer of 1964. The report prepared was presented to a committee appointed by the Minister of Education and distributed to other interested and influential persons,

as well. Some of the recommendations made have been implemented.

(4) The author served as chairman of the 1965 Commencement Committee. This committee recommended to the administration that the Commencement exercises be held yearly and become part of the academic structure. This report has received favorable reaction from the administration and academic staff and its adoption is anticipated at the beginning of the 1965-1966 academic year.

IV. In the Faculty of Agriculture

(1) Establishment of the Department of Cultural Technique in June, 1965. A two-year effort between the Department of Soil Science and the Agricultural Engineering staff led to the establishment of this department. Indications for a vigorous development of this new department are already evident.

(2) Served on many committees dealing with the further development of Agricultural Experiment Stations, Graduate Training, Student Regulations, Farm Committee, etc.

V. In the Department of Soil Science

(1) Staff development

Assistance was given to the staff in their preparation for advanced degrees.

Prof. Dr. Abdüssalem Ergene was successful in passing his professorial examinations on May 23 and May 31, 1965.

Dr. Ömer Baykan passed the first part of his Doçent's examination on May 24, 1965, and hopefully will become a Doçent in October, 1965.

Dr. Hayati Çelebi passed his English qualifying examination in June, 1964, and left for America to receive advanced training in Soil Conservation.

Dr. Nazmi Oruç completed his doctorate work and left for the United States in February, 1964.

Assistant Gulağa Şimşek went to Konya on June 29, to receive further training in Soil Survey with a Dutch Soil Survey Group from Wageningen presently working in Konya.

There are two vacancies in the Department. Several candidates are available and it is believed that all positions will be filled in October, 1965.

Much assistance was also given to junior staff members of other Departments in their thesis preparation.

(2) Improvement of instruction

In order to overcome a shortage of Turkish textbooks in Soil Science, Dr. Ömer Baykan, Miss Inayet Berkman, and Dr. Lutfi Ogus translated the Soil Laboratory Manual of the American Society of Agronomy into Turkish. The first printing (5,000 copies) has been received. Funds to cover printing cost were obtained from U.S.A.I.D./Ankara.

Miss Inayet Berkman translated into Turkish FAO Development paper no. 78, entitled: "Methods and Machines for Tile and Other Tube Drainage". The printing of this paper will be completed in October. Funds to cover printing cost were obtained from TOPRAKSU.

Prof. Dr. Abdüssalem Ergene and Inayet Berkman translated into Turkish "Factors of Soil Formation" by Jenny. Prof. Ergene also wrote a textbook on Soil Science which is in the process of being printed.

(3) Strengthening of research activities

Two new projects dealing with the fertilization of sugar beets and Korunga were initiated. Plans are being made to establish a Soil Testing Laboratory for research, teaching and extension purposes. The manual of Soil Testing in India will be translated into Turkish. Permission for translation has been received. Assistance to cover the printing cost will be solicited. The development of this laboratory and associated research will be under the direction of Prof. Dr. Abdüssalem Ergene and Dr. Nazmi Oruç.

(4) Extension activities

In cooperation with FAO, a large fertilization program for Eastern Anatolia was set up in the winter of 1964-1965. In the early spring, word was received that the size of the program had to be reduced due to a cut in project funds. Nevertheless, the reduced program is quite effective, well organized, and a possible expansion for 1966 is being considered.

Dr. Ömer Baykan laid out 100 fertilizer demonstrations in Eastern Anatolia in the spring of 1965. The greatest problem is to obtain data from these demonstrations, in view of the shortage of equipment, manpower, etc.

(5) Student activities

This is another area that needs a lot of attention. The gap between staff and students needs to be narrowed. Attempts were made to overcome this.

Together with Dr. Sya Alkan of the Department of Cultural Technique, a series of lectures were organized to enlighten the students on the challenges they would encounter in their work upon graduation. The Regional Directorate of TOPRAKSU furnished many of the lectures.

A student trip to Israel was organized. The trip was to be sponsored by the Israeli Government. Due to a mix-up in communications, the approval of the Israeli Government was received too late. The trip is re-scheduled for the summer of 1966. Support already has been received from the Israeli Government.

Dr. Ömer Baykan, together with some other staff members, will organize a Soil Science Club for the students in Soil Science in the fall of 1965.

(6) Development plan

With the staff, a ten-year development for the Department of Soil Science was formulated. This plan can serve as a guideline for programs to be initiated in Research, Teaching and Extension. Kadro position for six additional positions have been requested. It will round out the department so that it can increase and strengthen its services to the students and the people of Eastern Anatolia.

(7) Other activities

The staff was engaged in many other acticities associated with the academic community, such as committee work, advising students, and other "household activities". Dr. Ömer Lütfi Baykan assists the administration in the preparation of the budget. Dr. Lütfi Öğüs works with Prof. Fenske in the registration of students, scheduling of courses and examinations. He also is in charge of giving entrance examinations to about 1,200 students. Miss Berkman catalogued all chemicals in the soils laboratory. Prof. Dr. Abdüssalem Ergene is becoming increasingly engaged in administration. All staff members play a role in the development of the Department, Faculty and University. The author also spent time studying the Turkish language, history and culture. The benefits derived from this activity far overshadow the efforts.